

THE PERSON IDENTIFIED BELOW IS DESIGNATED AS THE RESPONSIBLE LAND DISTURBER WHO WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY ASSOCIATED WITH THIS PROJECT. THE PERSON MEETS THE APPLICABLE REQUIREMENTS OF VIRGINIA CODE SECTION 10.1-563 AND 10.1-566 BY VIRTUE OF THE FOLLOWING:

 RESPONSIBLE LAND DISTURBER CERTIFICATE

 DCR CERTIFICATION FOR COMBINED ADMINISTRATOR, ADMINISTRATOR, PLAN REVIEWER, INSPECTOR, OR CONTRACTOR.

 VIRGINIA PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT, OR ARCHITECT

RESPONSIBLE LAND DISTURBER CONTACT INFORMATION:

NAME (SIGNATURE): _____

NAME (PRINT): _____

CERTIFICATION/REGISTRATION NUMBER: _____ RLD # _____

COMPANY: _____

MAILING ADDRESS: _____

TELEPHONE: _____

THIS DESIGNATION MAY ONLY BE CHANGED BY A PLAN COVER SHEET REVISION THAT MUST BE SUBMITTED TO THE CITY FOR VERIFICATION AND APPROVAL. THE DEPARTMENT OF PUBLIC WORKS/ENGINEERING MUST BE CONTACTED AT LEAST 48 HOURS PRIOR TO MEETING. PLEASE CALL (757) 664-4600

THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL PROPERTY OWNERS AND RESIDENTS OF PROPERTY ADJACENT TO THE DEVELOPMENT OR OFFSITE IMPROVEMENTS, 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK UNLESS OTHERWISE DIRECTED BY THE CITY. CONSTRUCTION WITHIN EASEMENTS OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN A SUSPENSION OF WORK.

<u>WATER COMPANY</u>	<u>POWER COMPANY</u>	<u>SANITATION</u>
CITY OF NORFOLK UTILITIES P.O. BOX 1080 NORFOLK, VIRGINIA 23501 CONTACT: DAVID SPEER, P.E. TEL: (757) 664-6555 FAX: (757) 664-6739	DOMINION VIRGINIA POWER 1601 HAMILTON AVE. PORTSMOUTH, VA 23707 PHONE: (757) 393-3824 (WORK) PHONE: (757) 434-3703 (CELL) CONTACT: GAYLENE W. WATSON	CITY OF NORFOLK UTILITIES P.O. BOX 1080 NORFOLK, VIRGINIA 23501 CONTACT: DAVID SPEER, P.E. TEL: (757) 664-6707 FAX: (757) 664-6707
<u>NATURAL GAS COMPANY</u>	<u>TELEPHONE COMPANY</u>	<u>PUBLIC TRANSPORTATION</u>
VIRGINIA NATURAL GAS 515 VIRGINIA BEACH BLVD. NORFOLK, VA 23502 TEL: (757) 466-5525 FAX: (757) 466-5514 CONTACT: JOSEPH SIMONS	VERIZON 3701 CLEVELAND ST. NORFOLK BEACH, VA 23462 TEL: (757) 875-2541 CONTACT: CARLTON HENERY	HAMPTON ROADS TRANSIT 500 EAST 18th STREET, BLDG 4 NORFOLK, VA 23509 (757) 222-6000 EXT. 6018 CONTACT: DON LINT DIRECTOR OF CONSTRUCTION
<u>LOCAL ENGINEERING OFFICE</u>	<u>CABLE COMPANY</u>	<u>NORFOLK SMART TRAFFIC CENTER</u>
CITY OF NORFOLK PUBLIC WORKS 8101 UNION ST. ROOM 700 NORFOLK, VIRGINIA 23510 TEL: (757) 664-4655 FAX: (757) 664-4603	COX COMMUNICATIONS 5200 CLEVELAND STREET NORFOLK BEACH, VA 23462 (757) 435-5245 CONTACT: DEMETRIUS IDLETT	CITY OF NORFOLK TRANSPORTATION DIVISION 8101 UNION ST. ROOM 200 NORFOLK, VIRGINIA 23510 CONTACT: DANIEL RYDZEWSKI TEL: (757) 664-7304 FAX: (757) 664-7311

THE CONTRACTOR SHALL CONTACT THE CITY OF NORFOLK, BUREAU OF ENVIRONMENTAL SERVICES (664-4368) AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE ACTIVITY SO THAT A PRE-CONSTRUCTION CONFERENCE CAN BE SCHEDULED.

THERE IS APPROXIMATELY 30,442.08 S.F. - 0.699 AC. OF LAND DISTURBANCE
FOR THIS PROJECT

FOR ALL SITES 1 ACRE OR GREATER, OR GREATER THAN 2,500 SQUARE FEET IN THE CBPA, CONTACT THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AT (804) 225-2613 TO OBTAIN A VSMF CONSTRUCTION PERMIT.

S-1. THE MERIDIAN SOURCE OF THIS SURVEY IS BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (93 HARN). COORDINATE VALUES (IF SHOWN) ARE EXPRESSED IN U.S. SURVEY FEET.

S-2. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN FEET AND BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO NAVD 88. REFERENCE CONTROL STATION UTILIZED: "GPS051" ELEV=9.80

S-3. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ANY/LA PARCEL LINES, EASEMENTS, RESTRICTIONS AND CURRENT RIGHTS-OF-WAY THAT MAY AFFECT THE PROJECT AREA AS SHOWN.

S-4. THE INVESTIGATION, DELINEATION, AND LOCATION OF WETLANDS, HAZARDOUS WASTE, AND OTHER ENVIRONMENTAL CONDITIONS WERE NOT PERFORMED UNLESS OTHERWISE NOTED AND/OR SHOWN HEREON.

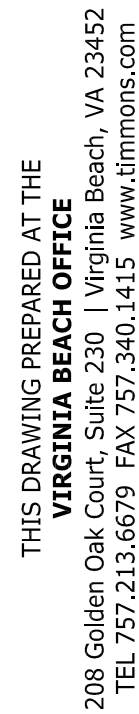
S-5. THE UNDERGROUND UTILITIES SHOWN ARE BASED ON A COMBINATION OF EXISTING MARKINGS, FIELD LOCATED STRUCTURES, AND PLAN INFORMATION IF MADE AVAILABLE BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEY DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THEIR EXACT LOCATION INDICATED. HOWEVER, THEY HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES ARE TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. MISS UTILITY TICKET(S) UTILIZED: 213700347, 213700353, 213700366, 213700369.

S-6. THIS TOPOGRAPHIC SURVEY OF A PORTION OF OKLAHOMA AVE. & DAVIS ST., NORFOLK, VIRGINIA WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF CHARLES L. SMITH, III, LS FROM AN ACTUAL X GROUND OR AIRBORNE SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON 05/18/12; AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

PRIOR TO CONSTRUCTION,
CONTRACTOR SHALL CALL
"MISS UTILITY" OF VIRGINIA
DIAL - 811
FOR LOCATION OF UNDERGROUND UTILITIES

CITY OF NORFOLK
DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION
2233 McKANN AVENUE
NORFOLK, VIRGINIA 23509
PHONE: (757) 823-4000
FAX: (757) 441 2402
CONTACT: MR. REY HERNANDEZ, P.E.

DIRECTOR OF PLANNING _____ DATE _____



YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

[illegible]

<i>T. GRIFFITH</i>
DESIGNED BY
<i>A. ROGERS</i>
CHECKED BY
<i>L. SCHEESSELE</i>
SCALE
<i>NONE</i>

LOWER PETERSON DRAINAGE IMPROVEMENTS

JOB NO.
32895

SHEET NO.
C-001

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GENERAL

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THESE DRAWINGS, PROJECT SPECIFICATIONS, AND WITH ALL CURRENT APPLICABLE CODES AND THE LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS:
- (A) VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS
- (B) VDOT ROAD AND BRIDGE STANDARDS
- (C) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- (D) VIRGINIA WORK AREA PROTECTION MANUAL
- (E) VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH)
- (F) CITY OF NORFOLK CONSTRUCTION SPECIFICATIONS AND STANDARDS

2. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURRENT SPECIFICATIONS AND STANDARDS OF THE CITY OF NORFOLK, VA. DEPARTMENT OF PUBLIC UTILITIES CONSTRUCTION STANDARDS ARE SET FORTH IN THEIR CONSTRUCTION SPECIFICATIONS AND STANDARD FOR WATER AND SANITARY SEWERAGE FACILITIES (HRPDC 4TH EDITION), AND THE CURRENT DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS. A COPY OF WHICH MUST BE PURCHASED FROM DPU BY THE CONTRACTOR AND KEPT AT THE JOB SITE AT ALL TIMES. REFERENCE TO VDOT SHALL MEAN THE CURRENT STANDARDS AND/OR SPECIFICATIONS OF VDOT.

3. ALL CONCRETE TO BE MINIMUM CLASS A-3 AIR ENTRAINED (3000 P.S.I.)
4. CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS TO ALL UTILITY SPLICE BOXES, JUNCTION BOXES, METER BOXES, ELECTRICAL SPLICE BOXES, MANHOLES, CLEANOUTS, AND OTHER ITEMS TO MATCH FINISHED GRADE.
5. WHERE PROPOSED GRADES TIE INTO EXISTING GRADES, ELEVATIONS AND ALIGNMENTS SHALL BE MATCHED.
6. FOR WORK IN THE CITY OF NORFOLK RIGHT-OF-WAY, CONTACT THE FOLLOWING 48 HOURS IN ADVANCE:
- RIGHT OF WAY DIVISION: 664-7306
- DRAINAGE: 823-4000
- LANDSCAPING: 441-2435
- DEPARTMENT OF UTILITIES: 823-1000 (5 DAYS IN ADVANCE)

7. THE CONTRACTOR SHALL, AT ALL TIMES, COMPLY WITH ALL OSHA AND STATE SAFETY ORDERS
8. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND KEEP COPIES OF THE SAME ON SITE DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS. ANY DISCREPANCIES FOUND SHALL BE CALLED TO THE ATTENTION OF THE OWNERS REPRESENTATIVE AND BE RESOLVED BEFORE PROCEEDING WITH ANY WORK
10. ALL INFORMATION SHOWN ON THESE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL REPORT IMMEDIATELY TO THE ENGINEER ANY CONDITIONS CONFLICTING WITH THE DRAWINGS. FIELD MODIFICATIONS TO THE DRAWINGS SHALL NOT BE MADE WITHOUT THE CONSENT OF THE ENGINEER.
11. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK SITE, FREE FROM TRASH AND DEBRIS
12. THE CONTRACTOR SHALL KEEP AND MAINTAIN A SET OF PROJECT PLANS AND SPECIFICATIONS ON THE SITE AT ALL TIMES.
13. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES.
14. DIMENSIONS TAKE PRECEDENCE OVER SCALE.
15. ALL SALVAGEABLE ITEMS REMOVED AND NOT USED REMAIN THE PROPERTY OF THE OWNER.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAY, WALKS, CURBS, TRAFFIC SIGNAL DEVICES, PAVEMENT MARKINGS, ETC. THAT MAY BE CUT, OR THAT ARE DAMAGED DURING CONSTRUCTION AT HIS OWN EXPENSE.
17. ALL RIM ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND SHALL BE ADJUSTED TO MATCH THE FINISHED GRADE.
18. THE CONSTRUCTION SITE, ADJACENT AREAS, AND RIGHT-OF-WAYS SHALL BE KEPT CLEAN AND CLEAR OF CONSTRUCTION DEBRIS AT ALL TIMES.
19. FLOWABLE FILL IS NOT AN APPROVED MATERIAL FOR USE IN THE CITY OF NORFOLK FOR BACKFILL WITHOUT PRIOR APPROVAL. THE SELECT MATERIAL AND 21A STONE WILL BE IN ACCORDANCE WITH THE 2002 VDOT ROAD AND BRIDGE SPECIFICATIONS. FOR BACKFILL AROUND THE PIPE USE SELECT MATERIAL (SECTION 207) - TYPE I AND 20 CBR COMPACTION. FOR THE SUB BASE MATERIAL USE 6" MIN. VDOT 21A STONE IN ACCORDANCE TO SECTION 208.
20. DETAILED STAMPED DRAWINGS FOR SHORING AND SCAFFOLDING WILL BE REQUIRED AS PART OF THE RIGHT-OF-WAY PERMIT PROCESS.
21. RIGHT-OF-WAY EXCAVATION PERMITS ARE REQUIRED TO PERFORM EXCAVATION WORK, SEWER AND WATER MAIN INSTALLATION, AND ALL APPURTENANCES. PLEASE CONTACT THE DIVISION OF RIGHT-OF-WAY AT 664-7306 OR AT WWW.NORFOLK.GOV/PUBLICWORKS/ROW.
22. WHEN THE CONTRACTORS WORK REQUIRES THE SAWCUTTING AND/OR PARTIAL DEMOLITION AND/OR REMOVAL OF ANY SECTION OF AN EXISTING APRON OR SIDEWALK, THE CONTRACTOR WILL BE REQUIRED TO REMOVE SAID EXISTING APRON OR SIDEWALK AND REPLACE IT WITH A NEW MONOLITHIC APRON OR SIDEWALK. SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. ALL CONCRETE IS TO BE SAW CUT. NO PATCHING WILL BE ALLOWED. COMMERCIAL APRONS SHALL BE REPLACED WITH AN APPROVED COMMERCIAL APRON. RESIDENTIAL APRONS SHALL BE REPLACED WITH AN APPROVED RESIDENTIAL APRON (HS-207). SIDEWALKS SHALL BE REPLACED WITH AN APPROVED SIDEWALK DETAIL. CONTACT THE DIVISION OF RIGHT-OF-WAY FOR APPROVAL 664-7306. (ORDINANCE NO: 40,778)
23. WHEN A NEW APRON AND/OR SIDEWALK ARE INSTALLED, ALL NEW OR EXISTING UTILITY STRUCTURES SHALL BE INSTALLED AND/OR RELOCATED OUTSIDE THE AREA OF THE NEW APRON AND/OR SIDEWALK. A PERMIT AND INSPECTION ARE REQUIRED."

24. AS PART OF THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT-OF-WAY, THE CONTRACTOR MUST SUBMIT A MAP IDENTIFYING THE PROJECTS STORAGE AND LAY DOWN AREA. THE CITY DOES NOT ALLOW STORAGE, STAGING OR LAY DOWN AREAS WITHIN THE RIGHT OF WAY. CONTRACTORS ARE ENCOURAGED TO MAKE ARRANGEMENTS TO STORE MATERIALS AND LAY DOWN ON PRIVATE PROPERTY OR THEY MUST BE STORED WITHIN CONSTRUCTION SITE.
25. ALL TEMPORARY BULK WASTE CONTAINERS PLACED IN THE RIGHT OF WAY REQUIRE A PERMIT FROM THE DIVISION OF RIGHT-OF-WAY (664-7306).
26. ANY EXCAVATION IN THE ROADWAY WITH A TEMPORARY STONE(21A) RESTORATION WILL BE REQUIRED TO HAVE BASE COURSE ASPHALT IN PLACE WITHIN 30 DAYS.
27. ALL MISS UTILITY MARKINGS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE ERADICATED AT THE COMPLETION OF THE PROJECT.
28. CITY OF NORFOLK FLOOD CERTIFICATION: THE PROPERTY SHOWN HEREON APPEARS TO FALL WITHIN FLOOD ZONE(S) "X" WITH EXCEPTION OF THE OUTFALL WHICH IS IN FLOOD ZONE AE. ACCORDING TO F.E.M.A.'S FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR THE CITY OF NORFOLK, VIRGINIA. MAP NUMBER 5101040140F, MAP REVISED: SEPTEMBER 2, 2009
29. THE CONTRACTOR WILL BE REQUIRED TO POST A CASH, CHECK, OR SURETY BOND OR LETTER OF CREDIT TO EXCAVATE IN THE RIGHT OF WAY.
30. FULL CURB TO CURB RESURFACING MAY BE REQUIRED IF ROADWAY PORTION IS CUT WITHIN THE FIRST 5 YEARS AFTER RESURFACING.

MAINTENANCE OF TRAFFIC

1. PRIOR TO THE SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PRELIMINARY DETAILED TRAFFIC CONTROL PLAN FOR REVIEW BY THE DIVISION OF TRAFFIC ENGINEERING, DEPARTMENT OF PUBLIC WORKS. THE TRAFFIC CONTROL PLAN AS WELL AS ALL TRAFFIC CONTROL DEVICES UTILIZED ON THE PROJECT MUST COMPLY WITH THE "FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR STREETS AND HIGHWAYS AND "THE VIRGINIA WORK AREA PROTECTION MANUAL" FOLLOWING APPROVAL OF THE PLAN, A REPRODUCIBLE DRAWING SHALL BE SUBMITTED TO THE OFFICE OF THE DIRECTOR OF UTILITIES FOR USE AND DISTRIBUTION.
2. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED TRAFFIC CONTROL PLAN (MOT) WITH THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT-OF-WAY. THE MOT SHALL BE A DRAWING OR AERIAL PHOTO WITH SITE SPECIFIC DETAILS. THESE SHALL INCLUDE BUT ARE NOT LIMITED TO: TRAFFIC SIGNS, DIRECTIONAL SIGNS, DESTINATION SIGNAGE, CHANNELIZING DEVICES, WATER-FILLED BARRIERS, PORTABLE MESSAGE BOARDS WITH MESSAGES TO BE DISPLAYED AND TIMES AND DURATIONS OF DISPLAYED MESSAGES. ADDITIONALLY THE MOT SHALL DISPLAY THE EXACT LOCATION OF ALL SIGNS AND/OR DEVICES INCLUDING SPACING FOR EACH SIGN AND/OR DEVICE, SPACING BEING APPROPRIATE FOR THE WORK ZONE LOCATION AND POSTED SPEED LIMITS. ALL MAINTENANCE OF TRAFFIC (MOT) PLANS SHALL CONFORM TO THE CURRENT ISSUE OF "THE VIRGINIA WORK AREA PROTECTION MANUAL" COPIES OR REPRODUCTIONS OF THE MOT THAT ARE INCLUDED WITH THE PROJECT DRAWINGS AND SPECIFICATIONS WILL NOT BE ACCEPTED WITH THE CONTRACTOR'S PERMIT APPLICATION. CONTRACTORS SHOULD CONSIDER THESE ITEMS WHEN BIDDING PROJECT FOR CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SIGNING, DELINEATION PAVEMENT MARKINGS AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY TO PERFORM THE WORK. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL SUCH TEMPORARY DEVICE.
4. NO LANE CLOSURES AND/OR WORK IN THE RIGHT-OF-WAY, INCLUDING GRADING, SIDEWALK, CURB AND GUTTER, AND DRIVEWAY APRON INSTALLATION WILL BE ALLOWED WITHOUT A PERMIT FROM THE DIVISION OF RIGHT-OF-WAY (664-7306). ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)", THE "VIRGINIA WORK AREA PROTECTION MANUAL" AND THE "CITY OF NORFOLK RIGHT-OF-WAY EXCAVATION AND RESTORATION MANUAL. ADDITIONAL CHARGES APPLY IF OFF-DUTY OFFICERS ARE REQUIRED. A LIST OF PERMIT FEES IS LOCATED AT WWW.NORFOLK.GOV/PUBLICWORKS/ROW.
5. CONTRACTOR SHALL NOT CLOSE TRAFFIC LANES WITHOUT A PERMIT FROM THE RIGHT-OF-WAY DIVISION (664-7306).
6. TRAFFIC CONTROL PLANS AND DETAILS ARE REQUIRED FOR ALL CONSTRUCTION IN THE RIGHT-OF-WAY. WORK IN THE CITY RIGHT-OF-WAY IS PERMITTED ONLY BETWEEN THE HOURS OF 9:00AM AND 3:00PM OR AS DETERMINED BY THE CITY RIGHT-OF-WAY ADMINISTRATOR.
7. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES WITHOUT EXCEPTION.

DEMOLITION

1. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL THE REMOVED/DEMOLISHED MATERIAL FROM THE PROJECT SITE AND DISPOSE OF THE SAME IN A LEGAL MANNER AND/OR DELIVER TO THE CITY THOSE ITEMS SO DESIGNATED.
2. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND TEMPORARY RELOCATION OF EXISTING SIGNS.

UTILITIES

1. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF LOCATING ANY AND ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST OR CROSS THROUGH THE AREA OF CONSTRUCTION WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS BEFORE DIGGING. TO AVOID THE UTILITIES, THE CONTRACTOR SHALL CALL "MISS UTILITY OF VIRGINIA" AT "811". THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS SOLE EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
2. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE, NON-EXISTENCE, SIZE, TYPE, LOCATION, ALIGNMENT OR DEPTH OF ANY OR ALL UNDERGROUND UTILITIES OR OTHER FACILITIES. WHERE SURFACE FEATURES (MANHOLES, CATCH BASINS, VALVES, ETC.) ARE UNAVAILABLE OR INCONCLUSIVE, INFORMATION SHOWN MAY BE FROM UTILITY OWNER'S RECORDS AND/OR ELECTRONIC LINE TRACING, THE RELIABILITY OF WHICH IS UNCERTAIN. THE CONTRACTOR SHALL PERFORM WHATEVER TEST EXCAVATION OR OTHER INVESTIGATION IS NECESSARY TO VERIFY TIE-IN INVERTS, LOCATIONS AND CLEARANCES, AND SHALL REPORT IMMEDIATELY ANY DISCREPANCIES TO TIMMONS GROUP AT (757) 213-6679. UTILITY COMPANIES SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY EXCAVATION IN THE PROXIMITY OF THEIR UTILITIES.
3. CONTRACTOR SHALL CONFORM TO THE "OVERHEAD HIGH VOLTAGE LINE SAFETY ACT" (EFFECTIVE JULY 1, 1989) AND SHALL CONTACT THE NECESSARY AUTHORITIES PRIOR TO START OF CONSTRUCTION.
4. STATE LAW MANDATES THE NOTIFICATION OF UTILITY OWNERS 48 HOURS IN ADVANCE OF EXCAVATION. FOR LOCATION OF UTILITIES CALL:
- | UTILITY OWNER CONTACT | PHONE NUMBER |
|---|----------------|
| DOMINION VIRGINIA POWER (GAYLENE W. WATSON) | (757) 393-3824 |
| VERIZON COMMUNICATIONS (CARLTON HENERY) | (757) 875-2541 |
| COX COMMUNICATIONS (DEMETRIUS IOLETT) | (757) 435-5245 |
| VIRGINIA NATURAL GAS (JOSEPH SIMONS) | (757) 466-5525 |
| HAMPTON ROADS SANITATION DISTRICT | (757) 460-2261 |
| CITY OF NORFOLK DEPT. OF UTILITIES | (757) 823-1013 |

5. PROPOSED CITY RIGHT-OF-WAY AND CITY UTILITY EASEMENT WATER AND SEWER WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NORFOLK DEPARTMENT OF UTILITIES STANDARD SPECIFICATIONS, THE HAMPTON ROADS PLANNING DISTRICT COMMISSION REGIONAL STANDARDS, AND THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF HEALTH REGULATIONS.
6. THE UTILITIES FIELD ENGINEERING OFFICE SHALL BE CONTACTED AT 823-1001 FIVE (5) DAYS PRIOR TO START OF WORK TO SCHEDULE AN INSPECTOR AND PRECONSTRUCTION CONFERENCE. APPROVED SUBMITTALS REQUIRED ON ALL INSPECTED MATERIALS.
7. WATER METER SETTINGS AND FIRE SERVICE DETECTOR CHECK INSTALLATIONS SHALL BE PERFORMED BY CITY FORCES AT THE OWNER'S EXPENSE.
8. WATER SERVICE ABANDONMENT SHALL BE PERFORMED BY CITY FORCES. CALL UTILITIES WATER DISTRIBUTIONS AT 823-1001 TO COORDINATE.
9. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF THE "CITY OF NORFOLK TREE ORDINANCE" (EFFECTIVE JANUARY 15, 1996) AND THE NORFOLK'S ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE MANUAL.
10. PROPOSED FIRE HYDRANT PIPING TO BE 6" DUCTILE IRON PIPE CLASS 52 MINIMUM WITH MECHANICAL RESTRAINED JOINTS AND FIRE HYDRANT VALVES RODDED TO SERVICE TEES. FIRE HYDRANT VALVES LOCATED NO GREATER THAT 3 LINEAR FEET FROM SERVICE TEES.
11. LOCATION AND DEPTH OF ALL PUBLIC UTILITIES SHALL BE FIELD VERIFIED BY DEVELOPERS CONTRACTOR WITH A NORFOLK DEPARTMENT OF UTILITIES INSPECTOR PRESENT. CONTRACTOR SHALL CONTACT THE UTILITIES FIELD ENGINEERS OFFICE, (TEL: 823-1001) AT LEAST 72 HOURS PRIOR TO EXCAVATION TO ARRANGE FOR A NORFOLK DEPARTMENT OF UTILITIES INSPECTOR TO BE PRESENT.
12. STAKEOUTS FOR PROPOSED WATER AND SEWER LINES SHALL BE PERFORMED BY A VIRGINIA LICENSED SURVEYOR. WRITTEN CUT SHEETS SHALL BE PROVIDED TO THE UTILITIES FIELD ENGINEERING OFFICE FIVE (5) DAYS PRIOR TO COMMENCEMENT OF UTILITY WORK."

DRAINAGE

1. THE LOCATIONS OF ALL DRAINAGE STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE DIMENSIONS SHOWN ON THE PLANS FOR DROP INLETS AND JUNCTION BOXES ARE APPROXIMATE.
2. ALL STORM SEWER PIPES, MANHOLES, AND CURB INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS AT THE LAST STAGES OF CONSTRUCTION.
3. ALL STORM DRAINAGE SYSTEM MEASURES SHALL BE COMPLETED AS SOON AS FEASIBLE IN THE CONSTRUCTION SCHEDULE.
4. TEMPORARY DRAINAGE DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR TO RELIEVE AND PREVENT FLOODING IN AREAS THAT MAY CAUSE DAMAGE TO ROADWAYS.
5. PRECAST STRUCTURES SHALL BE BUILT AND ASSEMBLED IN ACCORDANCE WITH CITY OF NORFOLK STANDARDS AND SPECIFICATIONS AND OTHER APPLICABLE STANDARDS.
6. ALL NEW DRAINAGE STRUCTURES ARE TO HAVE VDOT STD. IS-1 INLET SHAPING.
7. ALL STORM SEWER PIPE IN CITY OF NORFOLK RIGHT-OF-WAY SHALL BE, AT A MINIMUM, CLASS III REINFORCED CONCRETE. FOR STRENGTH, SHEET THICKNESS, OR CLASS DESIGNATION; AVAILABLE SIZES; HEIGHT OF FILL LIMITATIONS; AND METHOD OF BEDDING REQUIRED FOR A PARTICULAR HEIGHT OF COVER, SEE THE APPLICABLE VDOT ROAD AND BRIDGE STANDARDS PC-1 AND PB-1.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE CITY OF NORFOLK DEPARTMENT OF PUBLIC WORKS IS INVESTIGATING OBSERVED ROADWAY FLOODING AND DRAINAGE COMPLAINTS ASSOCIATED WITH THE STORM SYSTEM ALONG NEVADA AND OKLAHOMA AVENUES AFTER MINOR RAINFALL EVENTS. THIS ROADWAY FLOODING OCCURS AT THE INLETS CROSSING NEVADA AVENUE FROM THE DITCH BETWEEN WYOMING AVENUE AND NEVADA AVENUE. UNDER A PREVIOUS WORK ORDER, TIMMONS GROUP PERFORMED A DRAINAGE ANALYSIS OF THE EXISTING STORM SYSTEM ALONG PETERSON STREET, OKLAHOMA, NEVADA, WYOMING AND ARKANSAS AVENUES AND RECOMMENDED POTENTIAL MITIGATION MEASURES. UNDER THAT WORK ORDER AND ANALYSIS, SEVERAL AREAS OF CONCERN WERE IDENTIFIED BASED ON CITY INPUT, LOW ELEVATION, NEGATIVE SLOPE, AND/OR INADEQUATE CAPACITY, WHICH LED TO SURCHARGED OR FLOOD CONDITIONS.

IN ACCORDANCE WITH THE CITY OF NORFOLK WORK ORDER NO. 33 DATED MAY 10, 2012, BASED ON THE FINDINGS OF THE PREVIOUS ANALYSIS AND RECOMMENDATIONS, TIMMONS GROUP HAS BEEN TASKED TO PERFORM A MORE DETAILED ANALYSIS OF THOSE CRITICAL AREAS. AS DIRECTED BY THE CITY, THE AREAS OF GREATEST CONCERN WHICH ARE TO BE ANALYZED IN THE PROJECT ARE THE TWO AREAS SHOWN IN THE IMAGE BELOW. BLOW, THE AREA BETWEEN WYOMING AVENUE AND NEVADA AVENUE, AND THE AREA ALONG OKLAHOMA AVENUE UPSTREAM OF PETERSON STREET.

AS PART OF THIS PROJECT A TOPOGRAPHIC SURVEY OF THE EXISTING DRAINAGE INFRASTRUCTURE CONNECTING THESE AREAS WAS PROVIDED BY BLAKEWAY CORPORATION AND IS INCLUDED IN THE SITE PLANS OF THIS PROJECT.

TIMMONS GROUP WOULD THEN PERFORM A DETAILED REVIEW AND INSPECTION OF THE EXISTING STORM SEWER INFRASTRUCTURE.

IT SHOULD BE NOTED THAT THE ANALYSIS PERFORMED IN THIS PROJECT ASSUMES THAT THE PROPOSED PETERSON STREET DRAINAGE IMPROVEMENTS, DONE UNDER CITY OF NORFOLK WORK ORDER NO. 22, SITE PLAN NUMBER SP# 12-0005, WHICH WERE APPROVED FOR CONSTRUCTION, HAVE BEEN DEVELOPED AND ARE COMPLETE AND FUNCTION AS DESIGNED.

EXISTING SITE CONDITIONS

THE EXISTING DRAINAGE INFRASTRUCTURE THAT IS PART OF THIS DESIGN AND ANALYSIS CONSIST OF A DITCH THAT RUNS BETWEEN WYOMING AVENUE AND NEVADA AVENUE. THIS EXISTING DITCH RECEIVES APPROXIMATELY 7.39 ACRES DRAINAGE FROM NEIGHBORING UPSTREAM INDUSTRIAL AREA. THIS DRAINAGE AREA IS RECEIVED BY MEANS OF SHEET FLOW AND DIRECT DISCHARGE FROM THE EXISTING 14"x22" CMP PIPE FROM THE SOUTH WEST. THE EXISTING DITCH THEN OUTFALLS INTO AN OPEN 18" RCP PIPE WHICH CONTINUES THROUGH A SERIES OF PIPES AND STRUCTURES (LABELED AS THE "A" SERIES IN THIS DEVELOPMENT) FROM NEVADA AVENUE ACROSS EXISTING PRIVATE INDUSTRIAL PROPERTY AND THEN OUTFALLS INTO THE OKLAHOMA AVENUE DITCH UPSTREAM OF PETERSON STREET, BY MEANS OF A 30' FES OUTFALL. ALSO CONNECTED TO THE "A" SERIES IS A SMALL PRIVATE BMP AS SHOWN IN THE TOPOGRAPHIC SURVEY. APPROXIMATELY 55 FEET FROM THE 30' FES OUTFALL INTO THE OKLAHOMA AVENUE DITCH, THE DITCH ENTERS AN EXISTING SERIES OF DRAINAGE PIPES AND STRUCTURES BY MEANS OF AN OPEN ENDED 21" RCP PIPE. IN ADDITION TO THE DRAINAGE FROM THE 30' FES, THE 21" RCP PIPE RECEIVES APPROXIMATELY 12.91 ACRES OF DRAINAGE THROUGH THE UPSTREAM OKLAHOMA AVENUE DITCH AND PIPES INFRASTRUCTURE. THE 12.91 ACRES OF DRAINAGE IS FULLY DEVELOPED CONSISTING OF A MIXTURE OF RESIDENTIAL AND INDUSTRIAL AREAS. AT THE VERY NEXT DOWNSTREAM STRUCTURE FROM THE 21" RCP PIPE, THE CONTINUING PIPES ARE 18" CMP PIPES. THIS SERIES OF PIPES AND STRUCTURES (LABELED AS THE "B" SERIES IN THIS DEVELOPMENT) CONTINUES ADJACENT TO OKLAHOMA AVENUE IN A NORTHERN DIRECT AND OUTFALLS INTO THE PETERSON STREET DITCH (IMPROVED UNDER CITY OF NORFOLK SP#12-0005). SOME OF THE "B" SERIES STRUCTURES APPEAR TO BE CURB INLETS SET OFF THE EDGE OF PAVEMENT IN GRASS AREAS. THE "B" SERIES ALSO CROSSES UNDER SEVERAL RESIDENTIAL DRIVEWAYS BEFORE THE PETERSON STREET OUTFALL.

THERE IS A HEAVILY WOODED AREA AT THE LOCATION OF THE 30' FES OUTFALL OF THE "A" SERIES DRAINAGE SYSTEM. AS MUCH AS POSSIBLE, IMPACTS TO THE EXISTING TREES SHALL BE LIMITED IN ORDER TO PROTECT THE EXISTING TREE CANOPY.

WHERE THE EXISTING DRAINAGE INFRASTRUCTURE IS WITHIN AND/OR CROSSES PRIVATE PROPERTY, THERE ARE EXISTING RECORDED CITY OF NORFOLK DRAINAGE EASEMENTS. THESE EASEMENTS ARE SHOWN IN THE TOPOGRAPHIC SURVEY INCLUDED IN THE SITE PLAN SHEETS FOR THIS DEVELOPMENT.

ADJACENT PROPERTIES

UNDER THIS DEVELOPMENT, THE MAJORITY OF WORK DONE TO THE EXISTING DITCH BETWEEN WYOMING AVENUE AND NEVADA AVENUE AND THE WORK DONE ON THE "A" SERIES WILL BE WITHIN THE EXISTING RIGHT-OF-WAY. WORK TO BE DONE ON THE "C" SERIES ALONG OKLAHOMA AVENUE IS PRIMARILY WITHIN THE RIGHT-OF-WAY LIMITS. AS INDICATED IN THE SITE PLANS, THE CONTRACTOR IS TO NOTIFY ALL CURRENT LAND OWNERS BEFORE COMMENCING WORK WITHIN PRIVATE PROPERTY. DISRUPTION OF UTILITY SERVICE TO THE NEIGHBORING RESIDENTIAL AND INDUSTRIAL AREAS WILL BE AVOIDED AS MUCH AS POSSIBLE. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) IN ORDER TO LIMIT THE AMOUNT OF EROSION AND SEDIMENTATION BEYOND THE LIMITS OF THIS DEVELOPMENT.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), 3RD EDITION. THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

THE FOLLOWING MEASURES SHALL BE INSTALLED AND MAINTAINED AS NECESSARY AND WHERE APPLICABLE DURING CONSTRUCTION:

SILT FENCE - 3.05:
A DOUBLE SILT FENCE SHALL BE INSTALLED AROUND ANY CONSTRUCTION STOCKPILE/LAY DOWN AREA IN ORDER TO LIMIT SEDIMENT-LADEN RUNOFF FROM SHEET FLOW OFF THOSE AREAS. SILT FENCE SHALL ALSO BE INSTALLED AROUND THE SITE OF THE PROPOSED DRY POND AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS.

STORM DRAIN INLET PROTECTION - 3.07:
ALL STORM DRAIN INLETS WITHIN THE PROJECT DISTURBED AREA SHALL BE PROTECTED DURING CONSTRUCTION. INLET PROTECTION SHALL BE INSTALLED ON ALL EXISTING INLETS TO REMAIN AND ON EACH PROPOSED INLET ONCE CONSTRUCTED. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.

CULVERT INLET PROTECTION - 3.08:
ALL CULVERTS WITHIN THE PROJECT DISTURBED AREA SHALL BE PROTECTED DURING CONSTRUCTION. CULVERT PROTECTION SHALL BE INSTALLED ON ALL EXISTING STORM CULVERTS WITHIN THE PROJECT AREA THAT ARE TO REMAIN DURING CONSTRUCTED. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER CULVERTS.

TREE PROTECTION - 3.38:
A FENCE BARRIER IS TO BE PLACED AROUND THE TREES AND VEGETATED AREAS WHICH ARE NOT TO BE DISTURBED DURING CONSTRUCTION IN ORDER TO PROTECT

THE TRESS AND OTHER VEGETATION FROM CONSTRUCTION EQUIPMENT AND SOIL COMPACTION DURING CONSTRUCTION.

TEMPORARY SEEDING - 3.31:
ALL DENUDED AREAS THAT WILL REMAIN DORMANT FOR A PERIOD OF TIME GREATER THAN 30 DAYS SHALL BE SEEDDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF VEGETATION WILL BE DEPENDENT ON THE TIME OF YEAR IT IS APPLIED.

PERMANENT SEEDING - 3.32:
ALL DENUDED AREAS THAT ARE TO REMAIN DORMANT FOR A PERIOD OF TIME GREATER THAN 1 YEAR OR MORE ARE TO BE PERMANENT SEEDDED. ALL AREAS THAT HAVE REACHED FINAL GRADE ARE TO BE PERMANENTLY SEEDDED AS SOON AS FINAL GRADE IS REACHED.

MAINTENANCE:
IN GENERAL, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAINFALL OR WEEKLY, WHICHEVER IS MOST FREQUENT, AND SHOULD BE CLEANED AND REPAIRED ACCORDING TO THE FOLLOWING SCHEDULE:

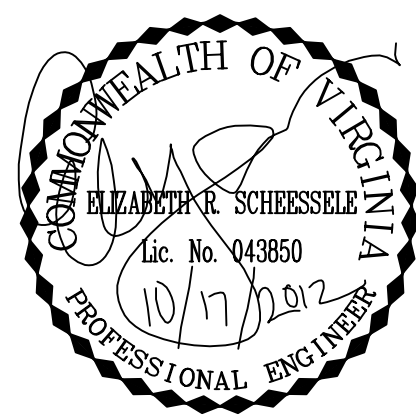
1. E&S CONTROL WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION AND BUILDUP OR CLOGGING WITH SEDIMENT. CORRECTIVE ACTION WILL BE TAKEN IMMEDIATELY.
2. SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT REACHES HALFWAY TO THE TOP.
3. ALL SEEDDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDDED AS NEEDED.
4. ALL TEMPORARY E&S MEASURES SHALL BE DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED AND VEGETATION IS ESTABLISHED.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT STABILIZATION IMMEDIATELY FOLLOWING FINAL GRADING, AND SEEDING SHALL BE DONE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR PERMANENT SEEDING AS SHOWN WITHIN THE SITE PLANS (TABLE 3.32E). EROSION CONTROL WILL BE INSTALLED ON FILL SLOPES THAT HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDDED TO PROTECT THE SLOPES PROPERLY. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

CONSTRUCTION

1. SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
2. ALL CLEARING, GRUBBING AND GRADING SHALL BE PERFORMED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND STANDARDS.
3. THE CONTRACTOR SHALL STRIP TOPSOIL AND ANY ORGANIC LADEN SOIL AND STORE FOR USE IN BACKFILLING, IF DEEMED ACCEPTABLE BY OWNER'S REPRESENTATIVE, AND LANDSCAPING FOR SITE RESTORATION. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY EXCESS SOIL AFTER RESTORATION OF THE SITE, OR AS DIRECTED BY THE OWNER.
4. ALL UTILITIES SURVEYED FOR THIS PROJECT ARE SHOWN ON THESE PLANS SCHEMATICALLY IN THEIR APPROXIMATE LOCATIONS. THESE UTILITIES INCLUDE: ELECTRIC, WATER, SEWER, NATURAL GAS AND FIBER OPTIC COMMUNICATION. HOWEVER, UTILITIES IN THE AREA MAY REQUIRE ADJUSTMENTS IF EXPOSED DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF THESE UTILITIES IN THE FIELD WITH THE UTILITY COMPANIES.
5. ALL UNPAVED SURFACES SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM PAVED AREAS AND TOWARD DRAINAGE STRUCTURES.
6. THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL CONSTRUCTION SURVEYING REQUIRED.
7. ALL PAVEMENT MARKINGS AND STRIPING SHALL BE THE COLOR AND PATTERN AS NOTED ON THE PLANS. PAINT SHALL CONFORM TO VDOT SPECIFICATIONS SIZE AND SHAPES SHALL CONFORM TO THE MUTCD.
8. SAW CUTTING OF EXISTING CONCRETE AND ASPHALT PAVING SHALL COMPLY WITH OSHA. THE CONTRACTOR SHALL KEEP DUST TO A MINIMUM AND SHALL BE RESPONSIBLE FOR THE DAMAGE TO AND REPLACEMENT OF ADJACENT MATERIALS AND FINISHES.
9. ALL STORM WATER PIPE JOINTS TO BE WRAPPED WITH A NON WOVEN FILTER CLOTH.
10. AT THE OWNERS DISCRETION EXCESS CLEAN EARTH FILL MATERIAL CONTAINING NO VEGETABLE MATTER, BROKEN CONCRETE OR OTHER DEBRIS MAY BE DISPOSED OF ON THE OWNER'S PROPERTY AT A LOCATION DESIGNATED BY THE OWNER OR AS DESIGNATED ON THE DRAWINGS IN A MANNER APPROVED BY THE OWNER.



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DATE

10/17/2012

DRAWN BY

T. GRIFFITH

DESIGNED BY

A. ROGERS

CHECKED BY

L. SCHEESSELE

SCALE

NONE

TIMMONS GROUP

LOWER PETERSON DRAINAGE IMPROVEMENTS

NORFOLK, VIRGINIA

GENERAL NOTES

JOB NO.

32895

SHEET NO.

C-002

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SURVEY LEGEND		
SYMBOL	ABBREV.	DESCRIPTION
APPROX.	APPROX.	APPROXIMATELY
AC	ACRES	ACRES
BIT	BITUMINOUS	BITUMINOUS
BLDG	BUILDING	BUILDING
BSL	BUILDING SETBACK LINE	BUILDING SETBACK LINE
BOL	BOLLARD	BOLLARD
BOR	BORING	BORING
BR	BRICK	BRICK
BRSH	BRUSH OR BUSH LINE	BRUSH OR BUSH LINE
CATV	CABLE TELEVISION	CABLE TELEVISION
CLD	CANOPY LINE	CANOPY LINE
CL	CENTERLINE	CENTERLINE
CLD	CENTERLINE OF DITCH	CENTERLINE OF DITCH
CLNG	CONCRETE	CONCRETE
CLS	CLUBS & GUTTER	CLUBS & GUTTER
CB	CURB BASIN	CURB BASIN
D.B.	DEED BOOK	DEED BOOK
DI	DRAIN INLET	DRAIN INLET
ED	EDGE OF PAVEMENT	EDGE OF PAVEMENT
EW	EDGE OF WATER	EDGE OF WATER
ELEC	ELECTRIC	ELECTRIC
ELEV	ELEVATION	ELEVATION
END	END OF INFORMATION	END OF INFORMATION
FENCE	FENCE	FENCE
FF	FINISHED FLOOR ELEVATION	FINISHED FLOOR ELEVATION
FR	FIRE HYDRANT	FIRE HYDRANT
FP	FLAG POLE	FLAG POLE
FL	FLOW LINE	FLOW LINE
FES	FLARED END SECTION	FLARED END SECTION
FM	FOUND MONUMENT	FOUND MONUMENT
FR	FRAME	FRAME
GM	GAS METER	GAS METER
GV	GAS VALVE	GAS VALVE
GUY	GUY WIRE	GUY WIRE
HC	HANDICAP	HANDICAP
HVAC	HEATING VENTILATION & AIR CONDITIONING	HEATING VENTILATION & AIR CONDITIONING
HP	HIGH POINT	HIGH POINT
INTR	INSTRUMENT	INSTRUMENT
INV	INVERT ELEVATION	INVERT ELEVATION
IRREG	IRREGULAR	IRREGULAR
JBOX	JUNCTION BOX	JUNCTION BOX
LP	LIGHT POLE	LIGHT POLE
MB	MAP BOOK	MAP BOOK
MRSH	MARSH	MARSH
MON	MONITOR WELL	MONITOR WELL
OW	OVERHEAD WIRES	OVERHEAD WIRES
OV	OVERALL	OVERALL
POL	PAGE	PAGE
PED	PEDESTAL	PEDESTAL
PL	PLASTER	PLASTER
PC	POINT OF CURVE	POINT OF CURVE
PCB	POINT OF BEGINNING	POINT OF BEGINNING
PVC	POLYVINYL CHLORIDE	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE	REINFORCED CONCRETE PIPE
RDCO	ROOF DRAIN CLEAN OUT	ROOF DRAIN CLEAN OUT
RHW	RIGHT-OF-WAY	RIGHT-OF-WAY
RW	TOP OF STRUCTURE ELEVATION	TOP OF STRUCTURE ELEVATION
SFM	SANITARY FORCE MAIN	SANITARY FORCE MAIN
SFMV	SANITARY FORCE MAIN VALVE	SANITARY FORCE MAIN VALVE
SSCO	SANITARY SEWER CLEAN OUT	SANITARY SEWER CLEAN OUT
SSL	SANITARY SEWER LINE	SANITARY SEWER LINE
SSMH	SANITARY SEWER MANHOLE	SANITARY SEWER MANHOLE
SSV	SANITARY SEWER VALVE	SANITARY SEWER VALVE
ST	SET MONUMENT	SET MONUMENT
SIGN	SIGN	SIGN
SE	SECT ELEVATION	SECT ELEVATION
SF	SQUARE FEET	SQUARE FEET
SDMH	STORM DRAIN MANHOLE	STORM DRAIN MANHOLE
SD	STORM DRAIN PIPE	STORM DRAIN PIPE
STRUC	STRUCTURE	STRUCTURE
SV	SURVEY MONUMENT	SURVEY MONUMENT
TBM	TEMPORARY BENCHMARK	TEMPORARY BENCHMARK
TELE	TELEPHONE	TELEPHONE
TMH	TELEPHONE MANHOLE	TELEPHONE MANHOLE
TS	TOP OF SLOPE	TOP OF SLOPE
TC	TOP OF CURB	TOP OF CURB
TRAF	TRAFFIC	TRAFFIC
TRANS	TRANSFORMER	TRANSFORMER
TR	TYPICAL	TYPICAL
TR	TRIE TRUNK	TRIE TRUNK
UE	UNDERGROUND ELECTRIC LINE	UNDERGROUND ELECTRIC LINE
UG	UNDERGROUND GAS LINE	UNDERGROUND GAS LINE
UT	UNDERGROUND TELEPHONE LINE	UNDERGROUND TELEPHONE LINE
UTC	UNDERGROUND TRAFFIC CONTROL	UNDERGROUND TRAFFIC CONTROL
UT	UTILITY POLE	UTILITY POLE
ULP	UTILITY POLE W/LAMP	UTILITY POLE W/LAMP
V	VAULT	VAULT
W	WATER LINE	WATER LINE
WM	WATER METER	WATER METER
WV	WATER VALVE	WATER VALVE
WFL	WETLANDS FLAG	WETLANDS FLAG

SURVEY NOTES

S-1. THE MERIDIAN SOURCE OF THIS SURVEY IS BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (80 HARN). COORDINATE VALUES (IF SHOWN) ARE EXPRESSED IN U.S. SURVEY FEET.

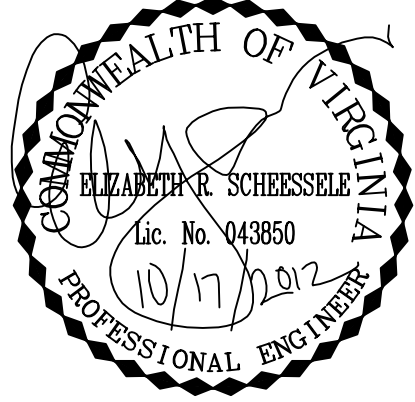
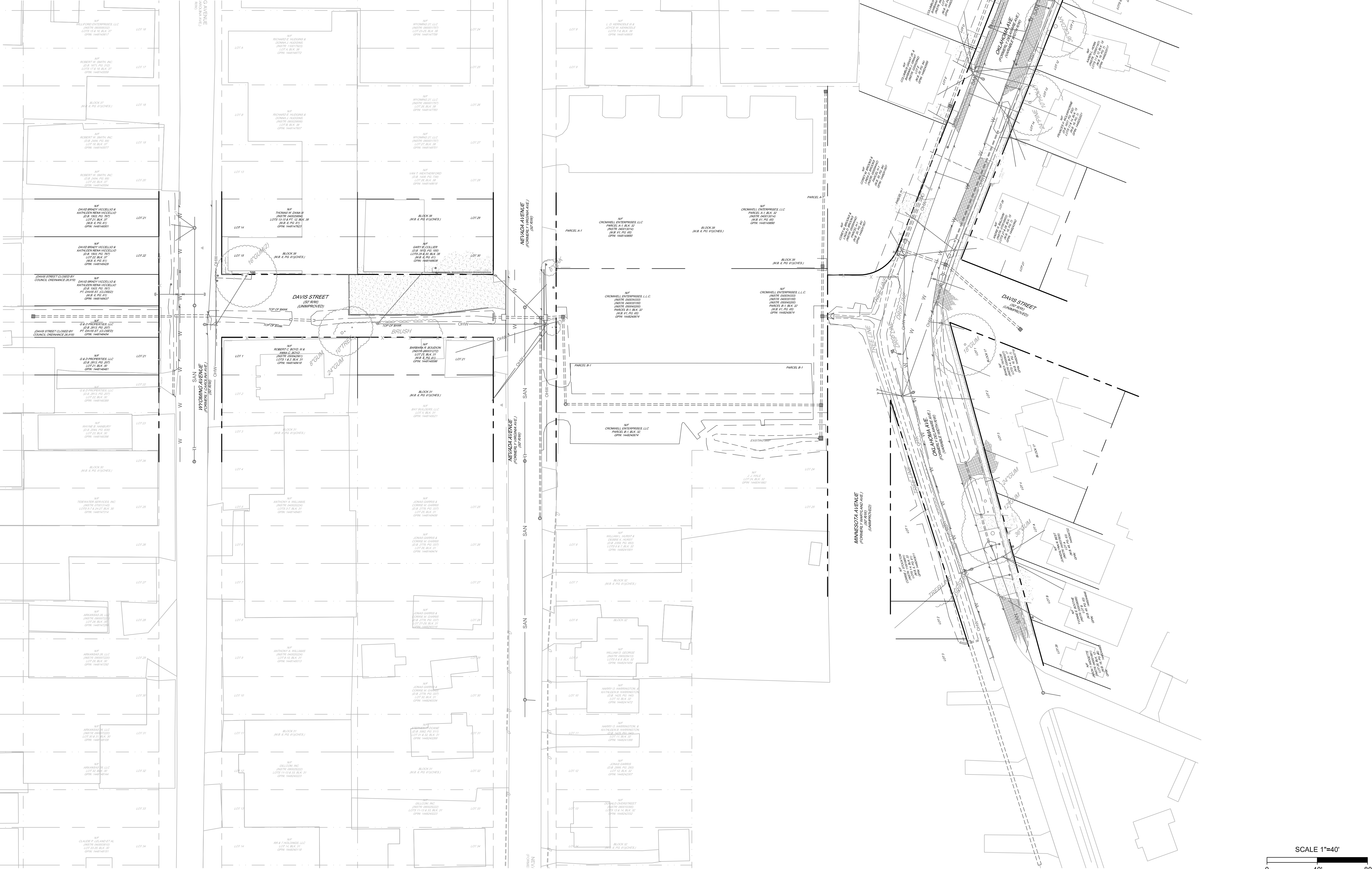
S-2. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN FEET AND BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO NAVD 88. REFERENCE CONTROL STATION UTILIZED: "SPS2151" ELEV=9.80

S-3. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ANY/all PARCEL LINES, EASEMENTS, RESTRICTIONS AND CURRENT RIGHTS-OF-WAY THAT MAY AFFECT THE PROJECT AREA AS SHOWN.

S-4. THE INVESTIGATION, DELINEATION, AND LOCATION OF WETLANDS, HAZARDOUS WASTE, AND OTHER ENVIRONMENTAL CONDITIONS WERE NOT PERFORMED UNLESS OTHERWISE NOTED AND/OR SHOWN HEREON.

S-5. THE UNDERGROUND UTILITIES SHOWN ARE BASED ON A COMBINATION OF EXISTING MARKINGS, FIELD LOCATED STRUCTURES, AND PLAN INFORMATION IF MADE AVAILABLE BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEY DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THEIR EXACT LOCATION INDICATED. HOWEVER, THEY HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

S-6. THIS TOPOGRAPHIC SURVEY OF A PORTION OF OKLAHOMA AVE. & DAVIS ST., NORFOLK, VIRGINIA WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF CHARLES L. SMITH, III, LS FROM AN ACTUAL X GROUND OR AIRBORNE SURVEY MADE UNDER MY SUPERVISION. THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON 05/18/12; AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.



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DATE	REVISION DESCRIPTION
10/17/2012	

T. GRIFFITH
A. ROGERS
L. SCHEESSELE

SCALE
1" = 40'

TIMMONS GROUP

LOWER PETERSON DRAINAGE IMPROVEMENTS

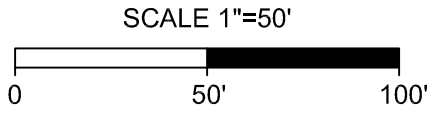
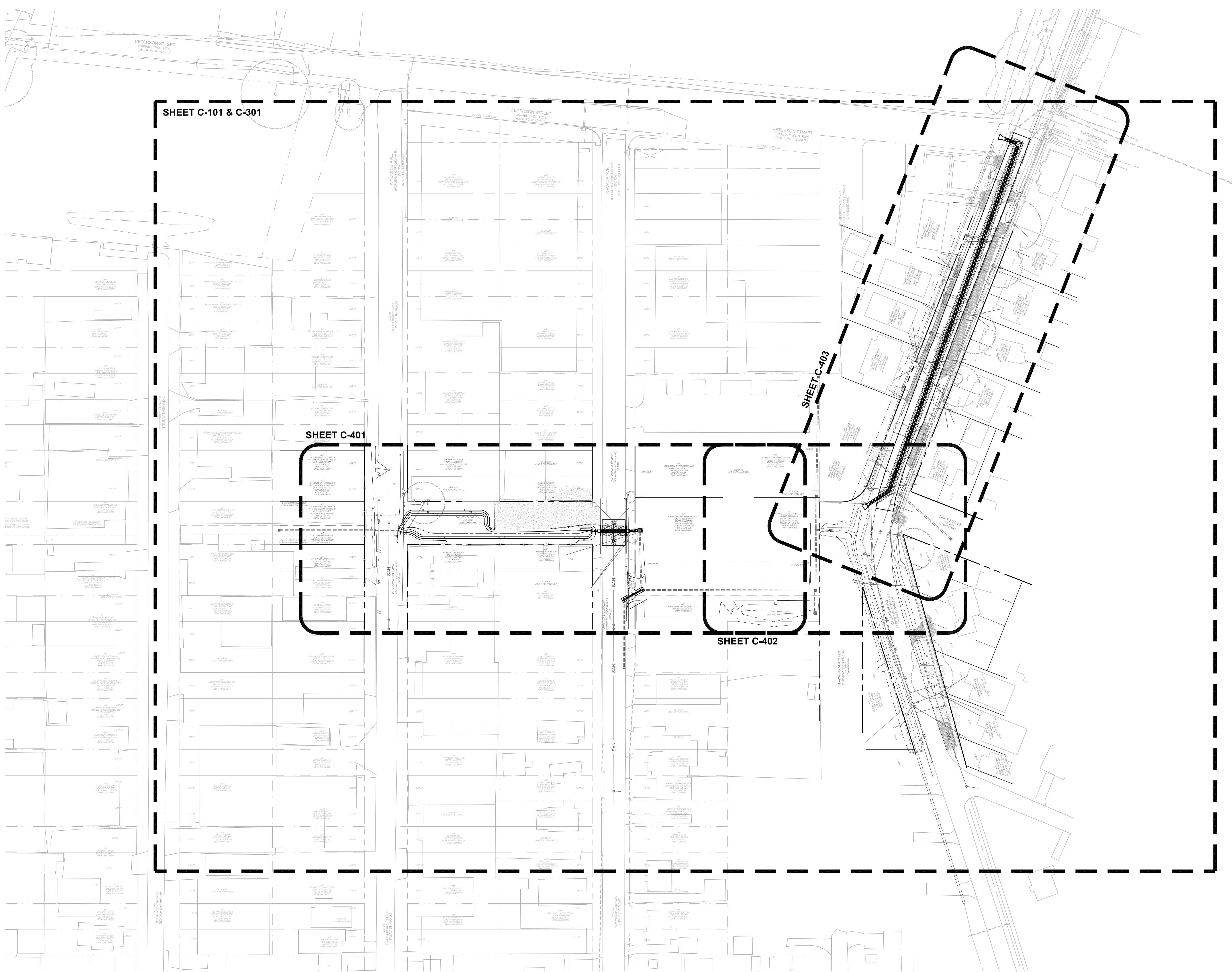
NORFOLK, VIRGINIA

EXISTING CONDITIONS

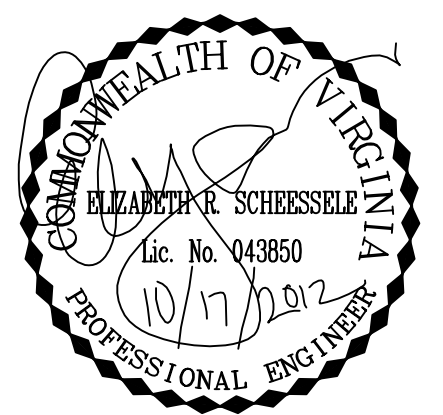
JOB NO.
32895
SHEET NO.
C-101

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VIRGINIA STATE PLANE COORDINATE SYSTEM
SOUTH ZONE (NAD 83) (111700)



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10/17/2012

DRAWN BY

T. GRIFFITH

DESIGNED BY

A. ROGERS

CHECKED BY

L. SCHEESSELE

SCALE

1" = 50'

TIMMONS GROUP

...•••••

LOWER PETERSON DRAINAGE IMPROVEMENTS

NORFOLK, VIRGINIA

SHEET INDEX

JOB NO.

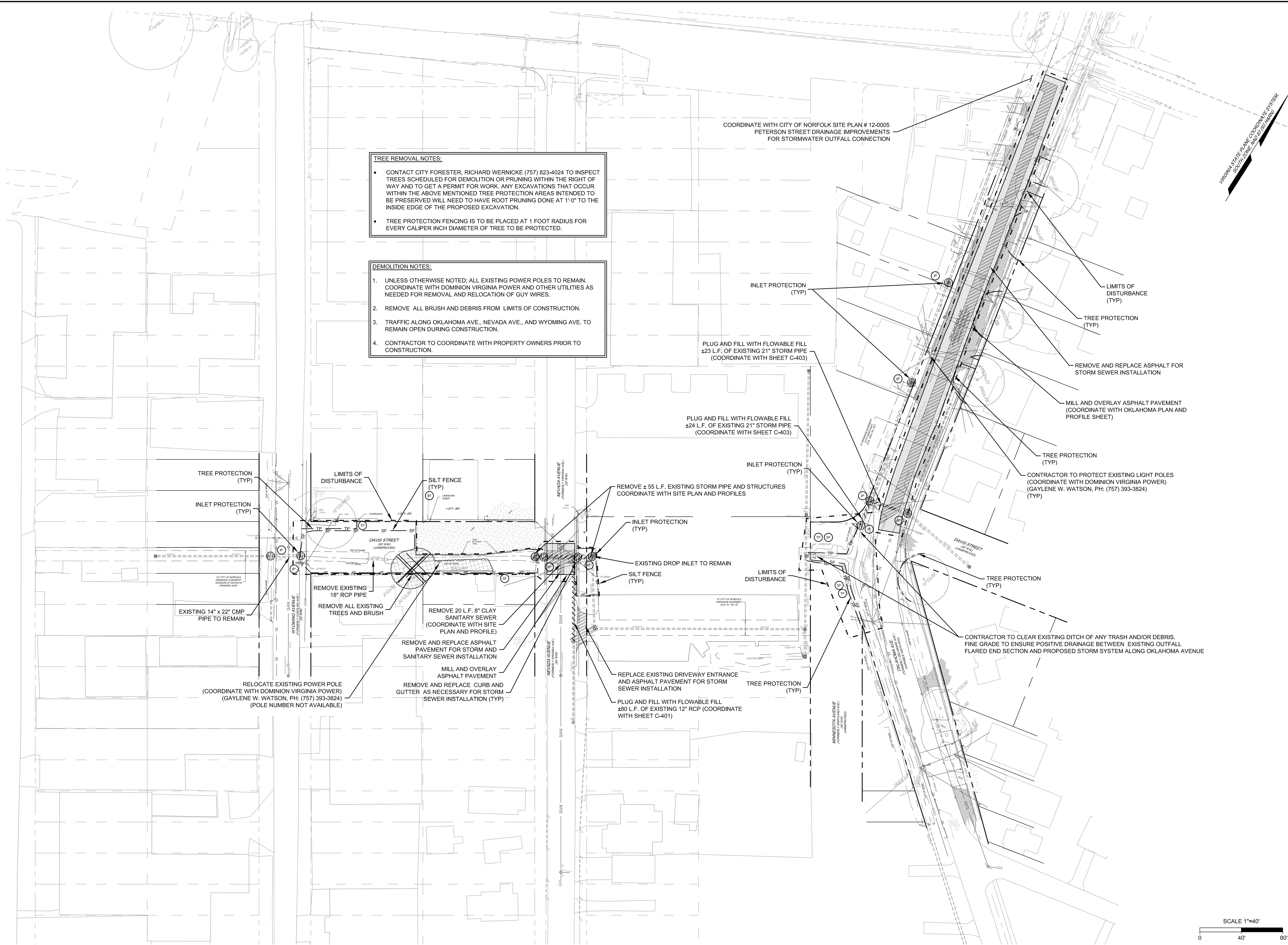
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SHEET NO.

C-201

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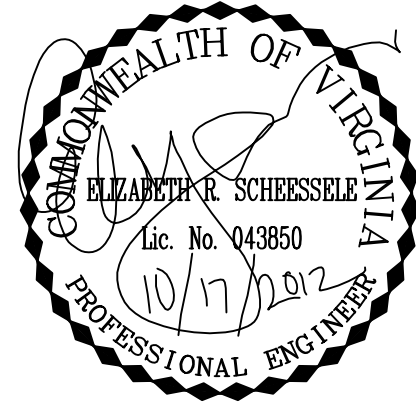


TREE REMOVAL NOTES:

- CONTACT CITY FORESTER, RICHARD WERNICKE (757) 823-4024 TO INSPECT TREES SCHEDULED FOR DEMOLITION OR PRUNING WITHIN THE RIGHT OF WAY AND TO GET A PERMIT FOR WORK. ANY EXCAVATIONS THAT OCCUR WITHIN THE ABOVE MENTIONED TREE PROTECTION AREAS INTENDED TO BE PRESERVED WILL NEED TO HAVE ROOT PRUNING DONE AT 1'-0" TO THE INSIDE EDGE OF THE PROPOSED EXCAVATION.
- TREE PROTECTION FENCING IS TO BE PLACED AT 1 FOOT RADIUS FOR EVERY CALIPER INCH DIAMETER OF TREE TO BE PROTECTED.

DEMOLITION NOTES:

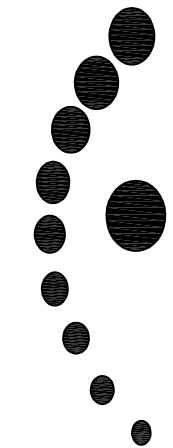
- UNLESS OTHERWISE NOTED; ALL EXISTING POWER POLES TO REMAIN. COORDINATE WITH DOMINION VIRGINIA POWER AND OTHER UTILITIES AS NEEDED FOR REMOVAL AND RELOCATION OF GUY WIRES.
- REMOVE ALL BRUSH AND DEBRIS FROM LIMITS OF CONSTRUCTION.
- TRAFFIC ALONG OKLAHOMA AVE., NEVADA AVE., AND WYOMING AVE. TO REMAIN OPEN DURING CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS PRIOR TO CONSTRUCTION.



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DESIGNED BY	A. ROGERS
CHECKED BY	L. SCHEESSELE
SCALE	1" = 40'



TIMMONS GROUP

LOWER PETERSON DRAINAGE IMPROVEMENTS

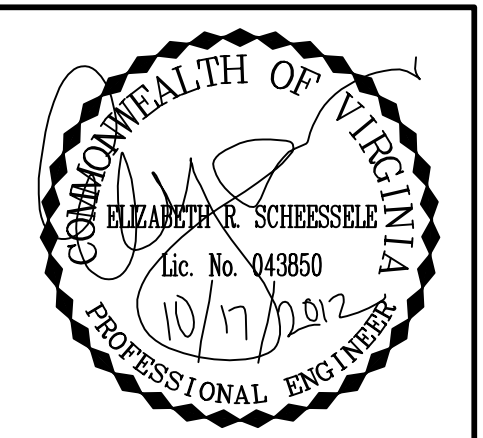
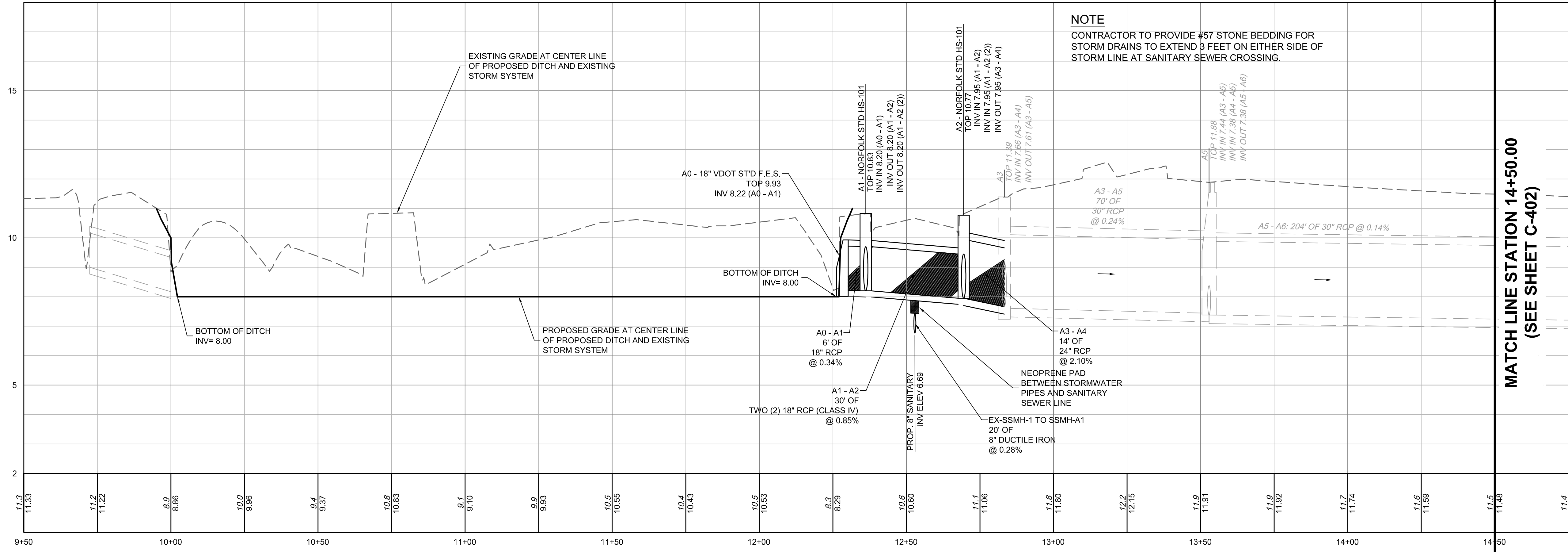
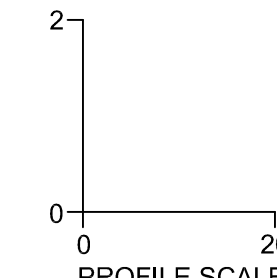
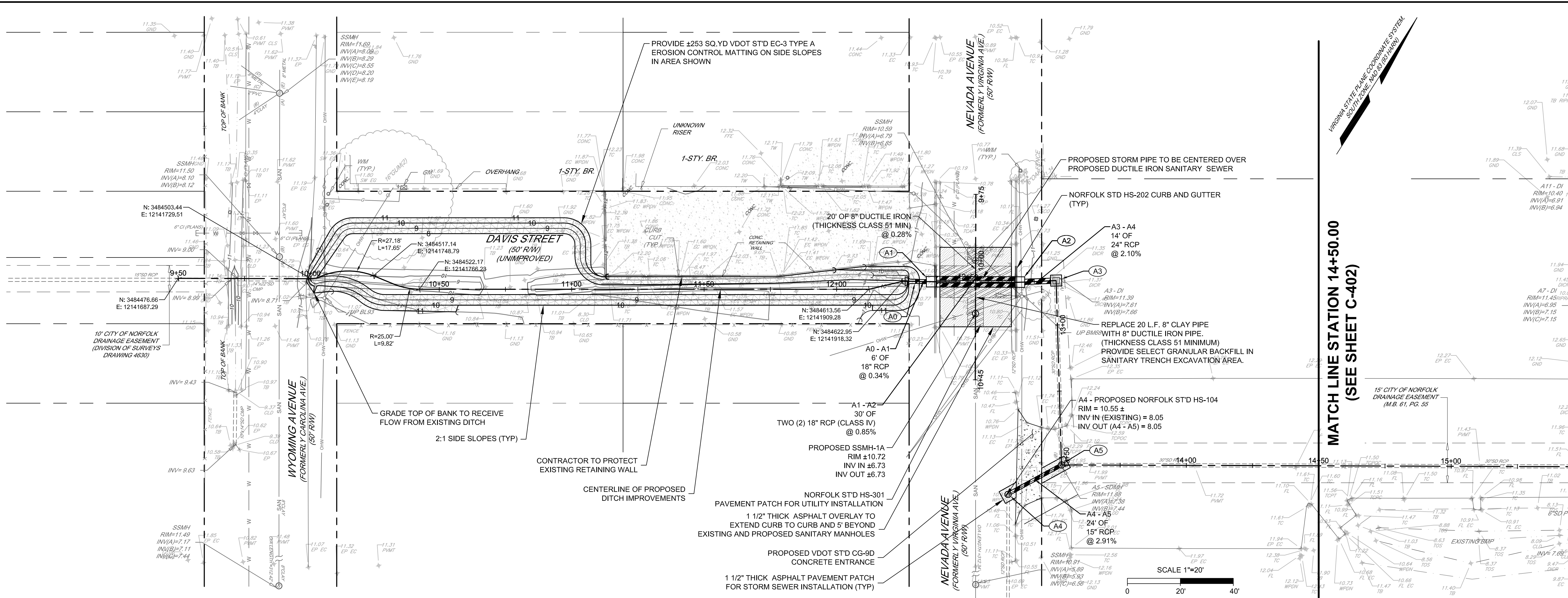
NORFOLK, VIRGINIA

DEMOLITION AND EROSION CONTROL PLAN

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SHEET NO.	C-301

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DESIGNED BY	A. ROGERS
CHECKED BY	L. SCHEESSELE
SCALE	1" = 20'



TIMMONS GROUP

LOWER PETERSON DRAINAGE IMPROVEMENTS

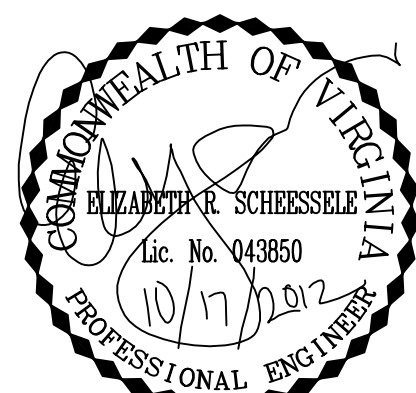
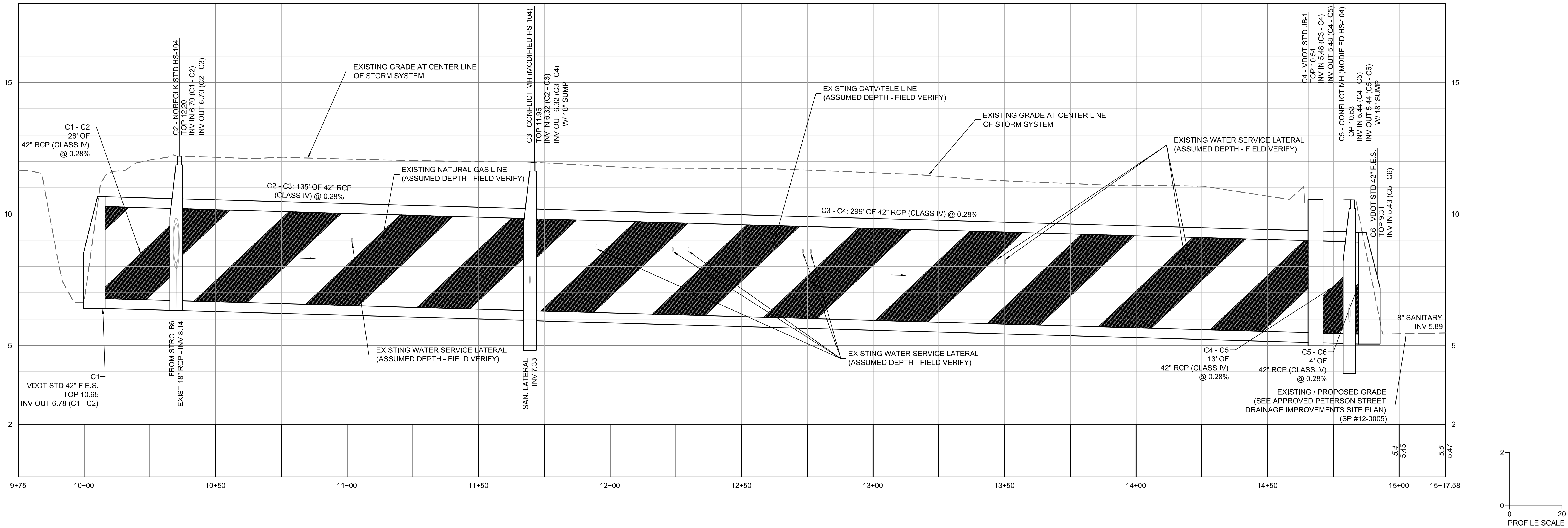
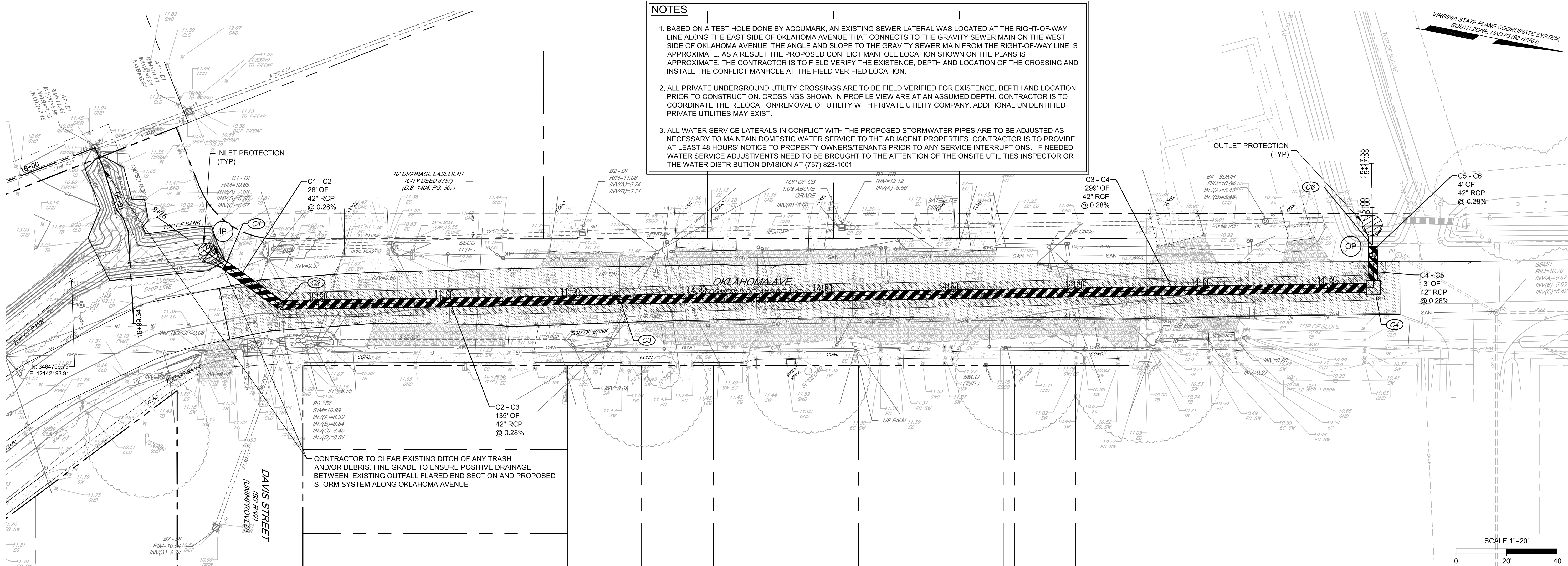
NORFOLK, VIRGINIA

DAVIS STREET PLAN AND PROFILE

JOB NO.	32895
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10/17/2012	
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DESIGNED BY	A. ROGERS
CHECKED BY	L. SCHEESSELE
SCALE	1" = 20'

TIMMONS GROUP

LOWER PETERSON DRAINAGE IMPROVEMENTS

NORFOLK, VIRGINIA

OKLAHOMA AVENUE PLAN AND PROFILE

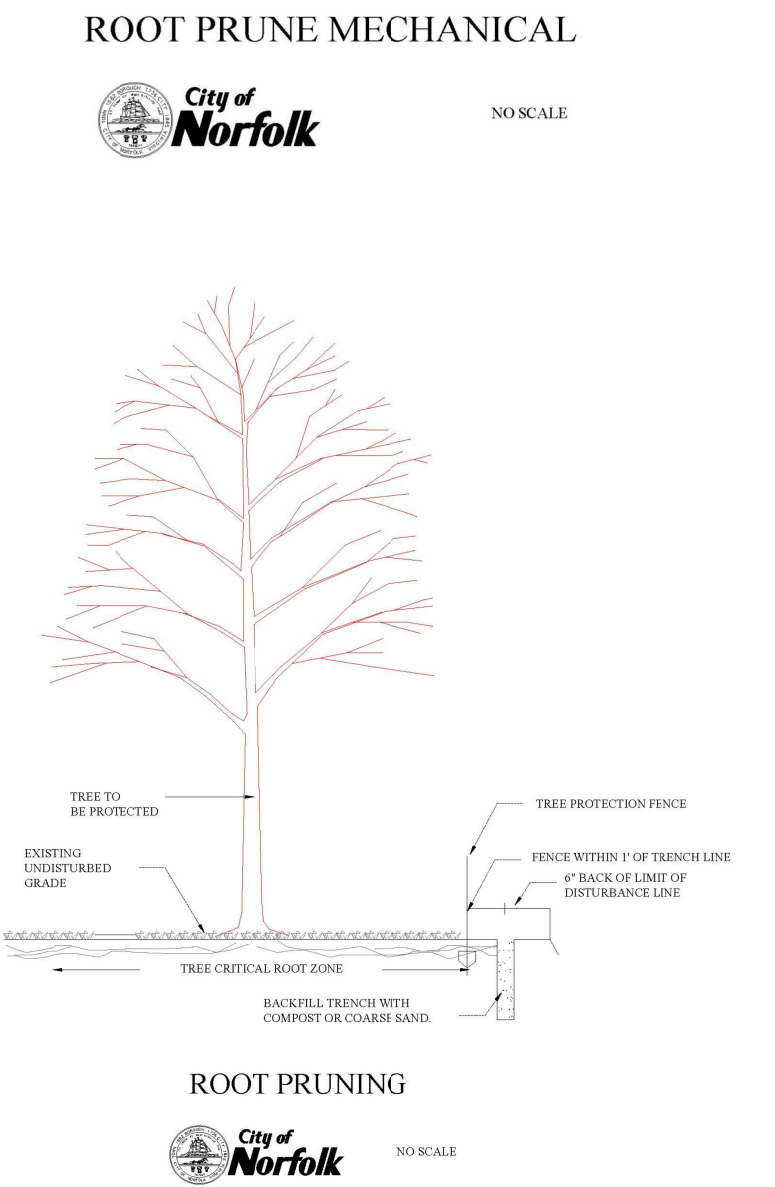
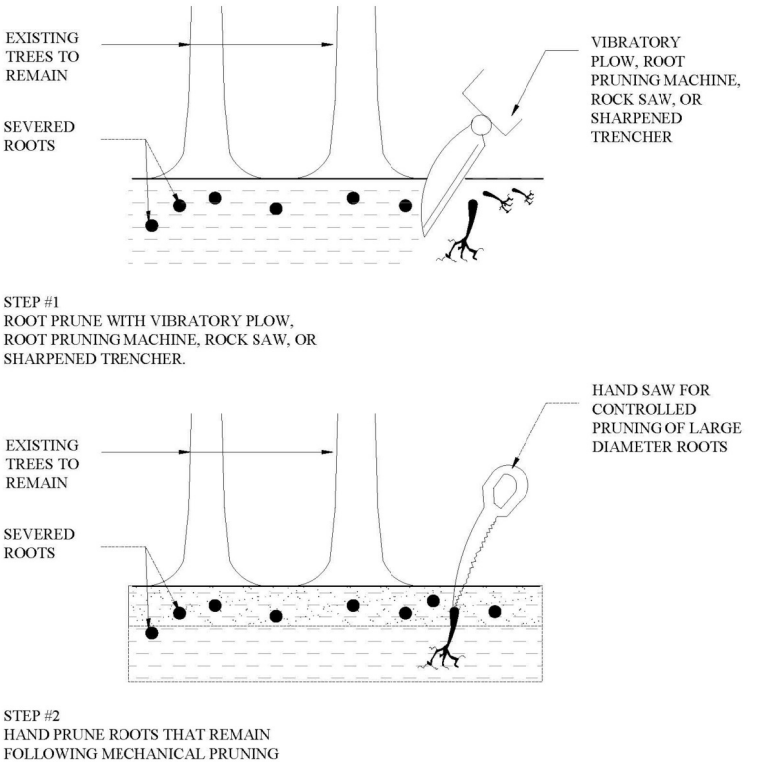
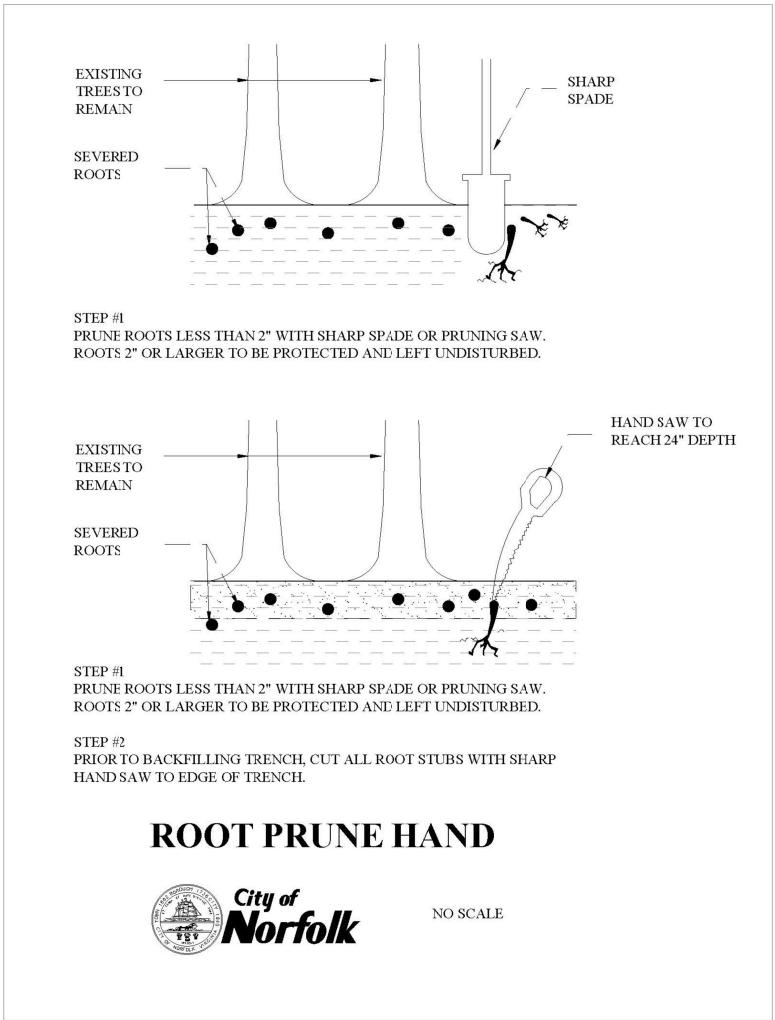
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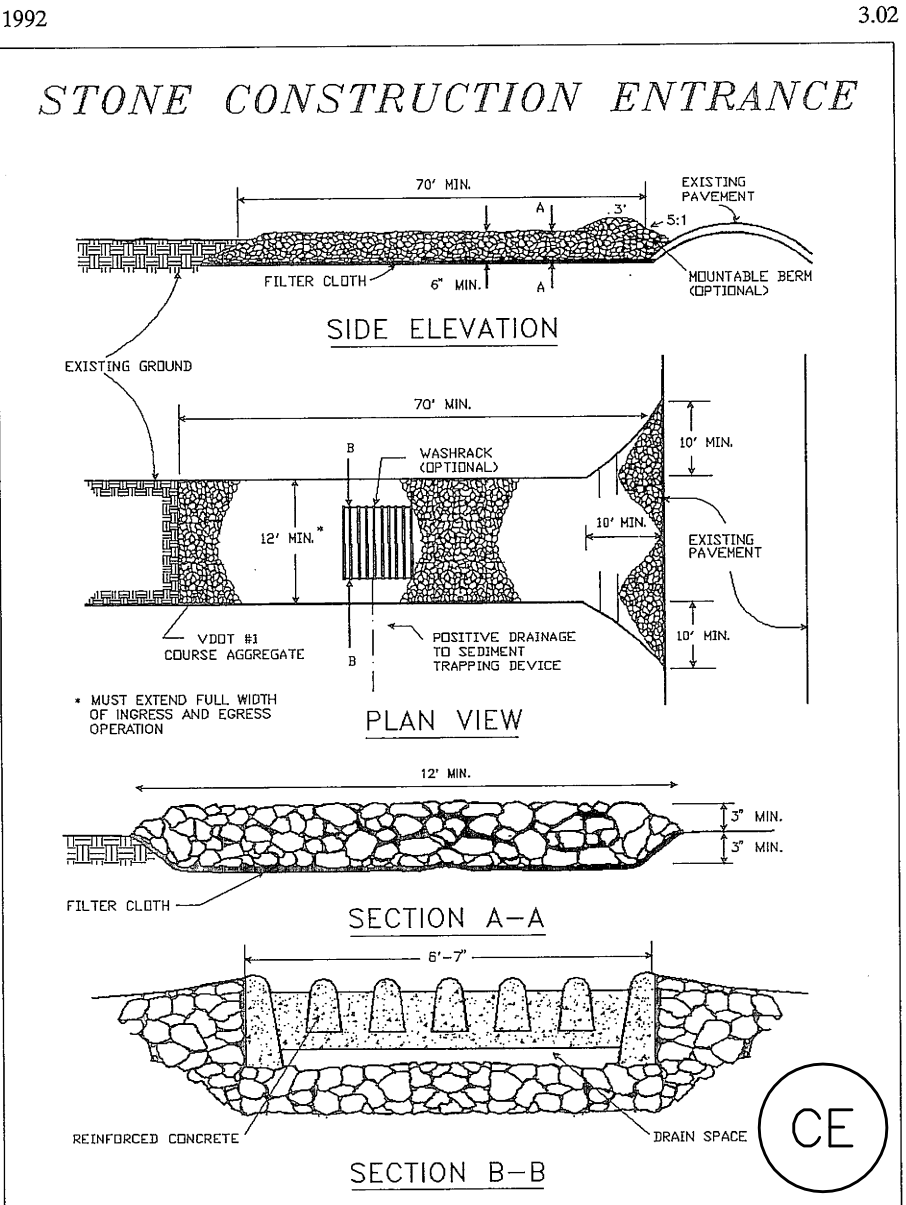
EROSION AND SEDIMENT CONTROL

1. UNLESS OTHERWISE INDICATED , ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (3RD EDITION, 1992) AND THE CITY OF NORFOLK EROSION AND SEDIMENT CONTROL ORDINANCE.
2. THE CONTRACTOR SHALL CONTACT ENVIRONMENTAL STORM WATER AT 823-4000 (48 HOUR NOTICE) PRIOR TO ANY LAND DISTURBING ACTIVITY (INCLUDING DEMOLITION) SO THAT A PRECONSTRUCTION CONFERENCE CAN BE SCHEDULED.
3. THE CONTRACTOR SHALL APPLY PERMANENT OR TEMPORARY SOIL STABILIZATION TO ALL DENUDED OR DISTURBED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. SOIL STABILIZATION MUST ALSO BE APPLIED TO DENUDED OR DISTURBED AREAS WHICH WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. SOIL STABILIZATION MEASURES INCLUDE VEGETATIVE ESTABLISHMENT, MULCHING AND THE EARLY APPLICATION OF GRAVEL BASE MATERIAL ON AREAS TO BE PAVED.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION.
5. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURE PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND CLEANUP OF SEDIMENTATION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE IMMEDIATELY.
6. THE CONTRACTOR SHALL LIMIT SITE ACCESS BY CONSTRUCTION VEHICLES TO ENTRANCES PROTECTED BY A STONE CONSTRUCTION ENTRANCE (VESCH STD. & SEPC 3.02) OR AN APPROVED COMPARABLE CONTROL MEASURE. SEDIMENT SHALL BE REMOVED FROM PAVED AREAS ON A DAILY BASIS.
7. STOCKPILES OF SOIL AND OTHER ERODIBLE MATERIALS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION FOR STOCKPILES ON SITE AS WELL AS FOR MATERIALS TRANSPORTED FROM THE PROJECT SITE.
8. THE CONTRACTOR SHALL MONITOR AND TAKE PRECAUTIONS TO CONTROL DUST INCLUDING (BUT NOT LIMITED TO) USE OF WATER, MULCH, OR CHEMICAL DUST ADHESIVES AND CONTROL OF CONSTRUCTION SITE TRAFFIC.
9. EFFLUENT FROM DE-WATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT ADJACENT PROPERTIES, WETLANDS, WATERWAYS OR THE STORM DRAINAGE SYSTEM.
10. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED NECESSARY BY THE PLAN APPROVING AUTHORITY.
11. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS, TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDDED.
12. TOPSOIL, SEED, AND FERTILIZE ALL AREAS WITHIN THE PROJECT LIMITS NOT OCCUPIED BY STRUCTURE, PAVEMENT, SIDEWALKS, ETC., TEMPORARY SEEDING OR STABILIZATION WILL BE REQUIRED WITHIN 7 DAYS OF CONSTRUCTION.
13. PERMANENTLY SEED ALL DENUDED AREAS THAT HAVE REACHED FINAL GRADE AND WILL BE DORMANT MORE THAN 1 YEAR, WITHIN 7 DAYS
14. FOR ALL SITES 1 ACRE OR GREATER, OR GREATER THAN 2500 SQUARE FEET IN THE CBPA, CONTACT THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AT (804) 786-1712 TO OBTAIN A VSMP CONSTRUCTION PERMIT.
15. THE CONTRACTOR SHALL CONTACT ENVIRONMENTAL STORM WATER AT 823-4000 (48 HOUR NOTICE) FOR INSPECTION OF ALL STORM WATER INFRASTRUCTURE CONSTRUCTED IN THE RIGHT-OF-WAY.
16. THE CONTRACTOR SHALL CONTACT ENVIRONMENTAL STORM WATER AT 823-4000 (48 HOUR NOTICE) FOR PRECONSTRUCTION CONFERENCE AND INSPECTION REQUIREMENT FOR THE SWM BASIN.
17. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE SITE AT ALL REASONABLE TIMES.
18. THE CONTRACTOR SHALL ADHERE TO MS-16, 4VAC 50-30-40 OF THE EROSION AND SEDIMENT CONTROL REGULATIONS FOR EROSION AND SEDIMENT CONTROL MEASURES FOR UTILITY TRENCH EXCAVATION.
19. THE VSMP PERMIT SHALL BE SUBMITTED BY THE CONTRACTOR UNDER A SEPARATE PACKAGE.
20. CONTACT CITY FORESTER, RICHARD WERNICKE (757) 823-4024 TO INSPECT TREES SCHEDULED FOR DEMOLITION OR PRUNING WITHIN THE RIGHT OF WAY AND TO GET A PERMIT FOR WORK. ANY EXCAVATIONS THAT OCCUR WITHIN THE ABOVE MENTIONED TREE PROTECTION AREAS INTENDED TO BE PRESERVED WILL NEED TO HAVE ROOT PRUNING DONE AT 1'0" TO THE INSIDE EDGE OF THE PROPOSED EXCAVATION.
21. ALL PLANTING, PRUNING AND REMOVAL PERMITS FOR WORK ON PUBLIC TREES IN PUBLIC PROJECTS MAY HAVE VARIOUS SPECIFIC REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, REQUIRING PROFESSIONAL ISA CERTIFIED ARBORISTS PERFORM URBAN FORESTRY WORK.

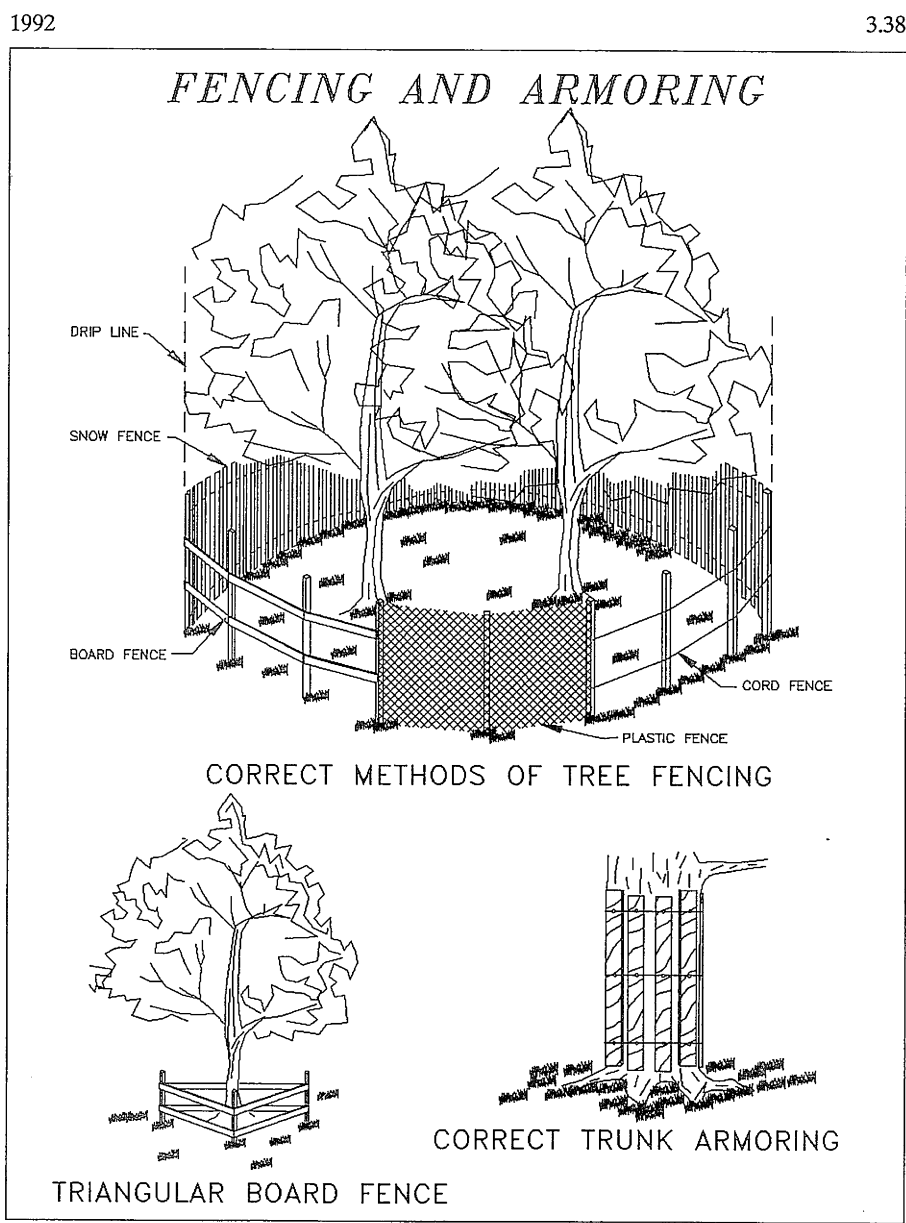


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TABLE 3.31-B (Revised June 2003) TEMPORARY SEEDING SPECIFICATIONS QUICK REFERENCE FOR ALL REGIONS		
APPLICATION DATES	SPECIES	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 -100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (lolium multi-florum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)
FERTILIZER & LIME		
● Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.) ● Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)		
NOTE: 1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site. 2 - Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disk or by other means. 3 - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs		



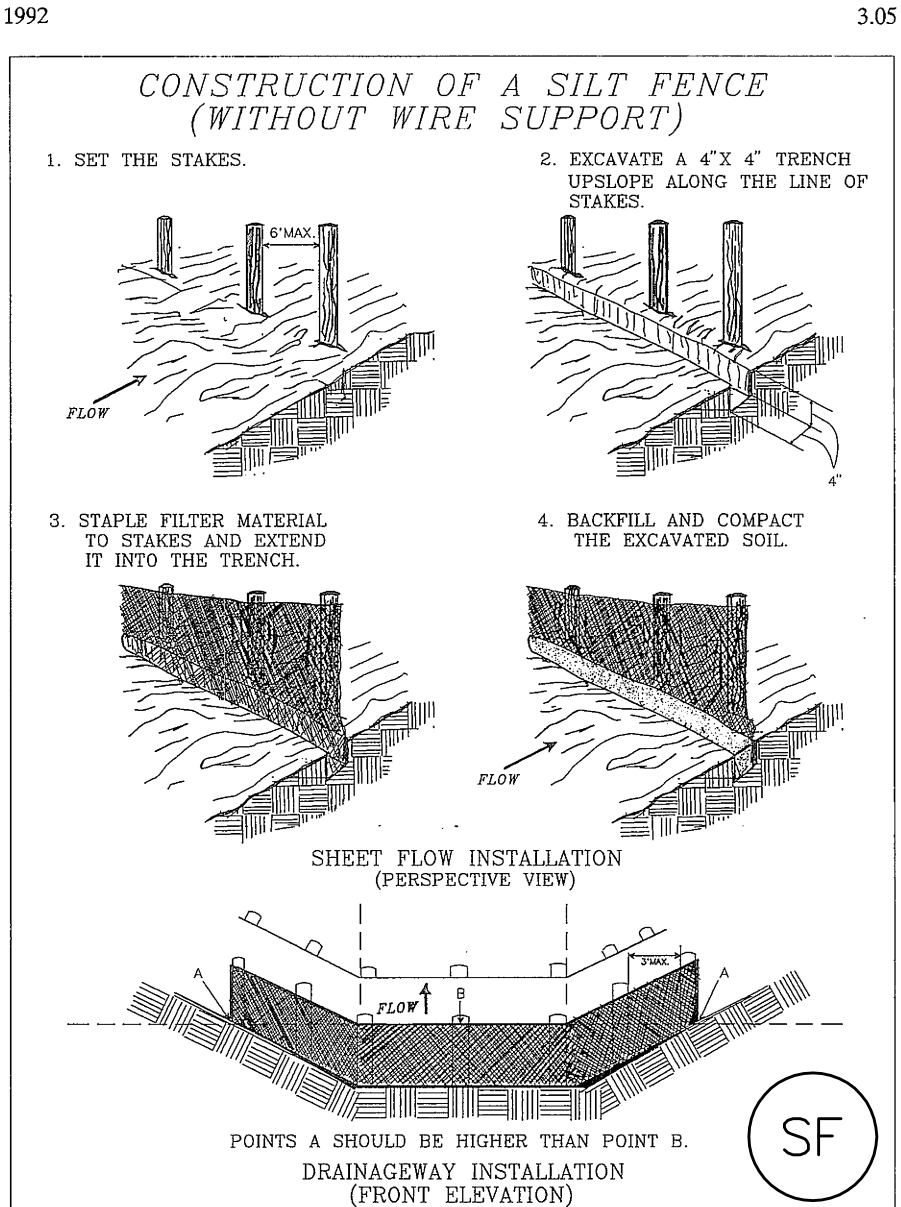
Source: Adapted from 1983 Maryland Standards for Soil Erosion and Sediment Control, and Va. DSWC



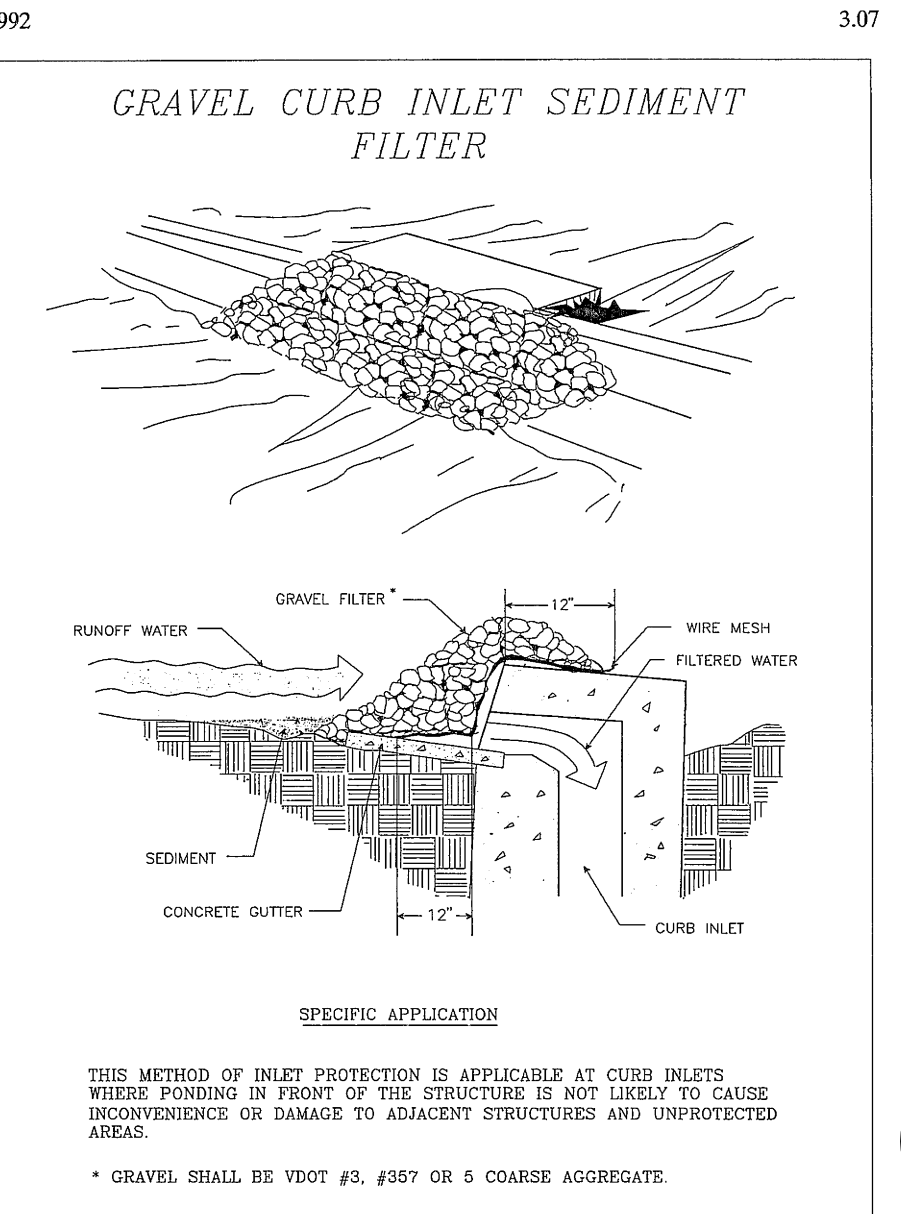
Source: Va. DSWC

PS

TABLE 3.32-E (Revised June 2003) PERMANENT SEEDING SPECIFICATIONS FOR COASTAL PLAIN AREA		
LAND USE	SPECIES	APPLICATION RATES
Minimum Care Lawn (Commercial or Residential)	Tall Fescue ¹ or Bermudagrass ¹	175 - 200 lbs. 75 lbs.
High-Maintenance Lawn	Tall Fescue ¹ or Bermudagrass ¹ (seed) or Bermudagrass ¹ (by other vegetative establishment method, see Std. & Spec. 3.34)	200-250 lbs. 40 lbs. (unhulled) 30 lbs. (hulled)
General Slope (3:1 or less)	Tall Fescue ¹ Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop ²	128 lbs. 2 lbs. 20 lbs. TOTAL: 150 lbs.
Low-Maintenance Slope. (Steeper than 3:1)	Tall Fescue ¹ Bermudagrass ¹ Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop ² Sericea Lespedeza ³	93-108 lbs. 0-15 lbs. 2 lbs. 20 lbs. 20 lbs. TOTAL: 150 lbs.
1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at http://sudan.ces.vt.edu/html/Turf/turf/publications/publications2.htm		
2 - Use seasonal nurse crop in accordance with seeding dates as stated below:		
May 1 st - August Annual Rye February, March - April Foxtail Millet September, October - November 15 th Annual Rye November 16 th - January Winter Rye		
3 - May through October, use hulled seed. All other seeding periods, use unhulled seed. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40 lbs/acre.		
FERTILIZER & LIME		
● Apply 10-20-10 fertilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000 sq. ft.) ● Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)		
NOTE: - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site. - Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disk or by other means. - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs		



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



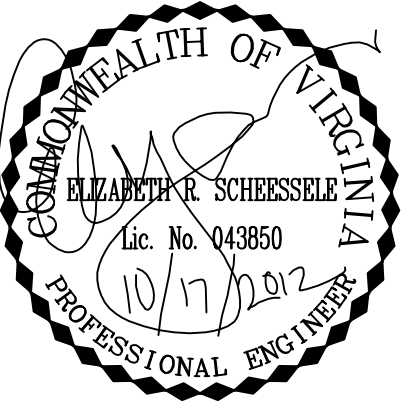
Source: Va. DSWC

IP

TABLE 3.39-A ADHESIVES USED FOR DUST CONTROL			
Adhesive	Water Dilution (Adhesive: Water)	Type of Nozzle	Application Rate Gallons/Acre
Anionic Asphalt Emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12.5:1	Fine Spray	235
Resin in Water	4:1	Fine Spray	300
Acrylic Emulsion (Non-Traffic)	7:1	Coarse Spray	450
Acrylic Emulsion (Traffic)	3.5:1	Coarse Spray	350

Source: Va. DSWC

6. Stone - Stone can be used to stabilize roads or other areas during construction using crushed stone or coarse gravel (see CONSTRUCTION ROAD STABILIZATION, Std. & Spec. 3.3).
7. Barriers - A board fence, wind fence, sediment fence, or similar barrier can help to control air currents and blowing soil. Place barriers perpendicular to prevailing air currents at intervals of about 15 times the barrier height. Where dust is a known problem, existing windbreak vegetation should be preserved.
8. Calcium Chloride - This chemical may be applied by mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist but not so high as to cause water pollution or plant damage. Application rates should be strictly in accordance with suppliers' specified rates.



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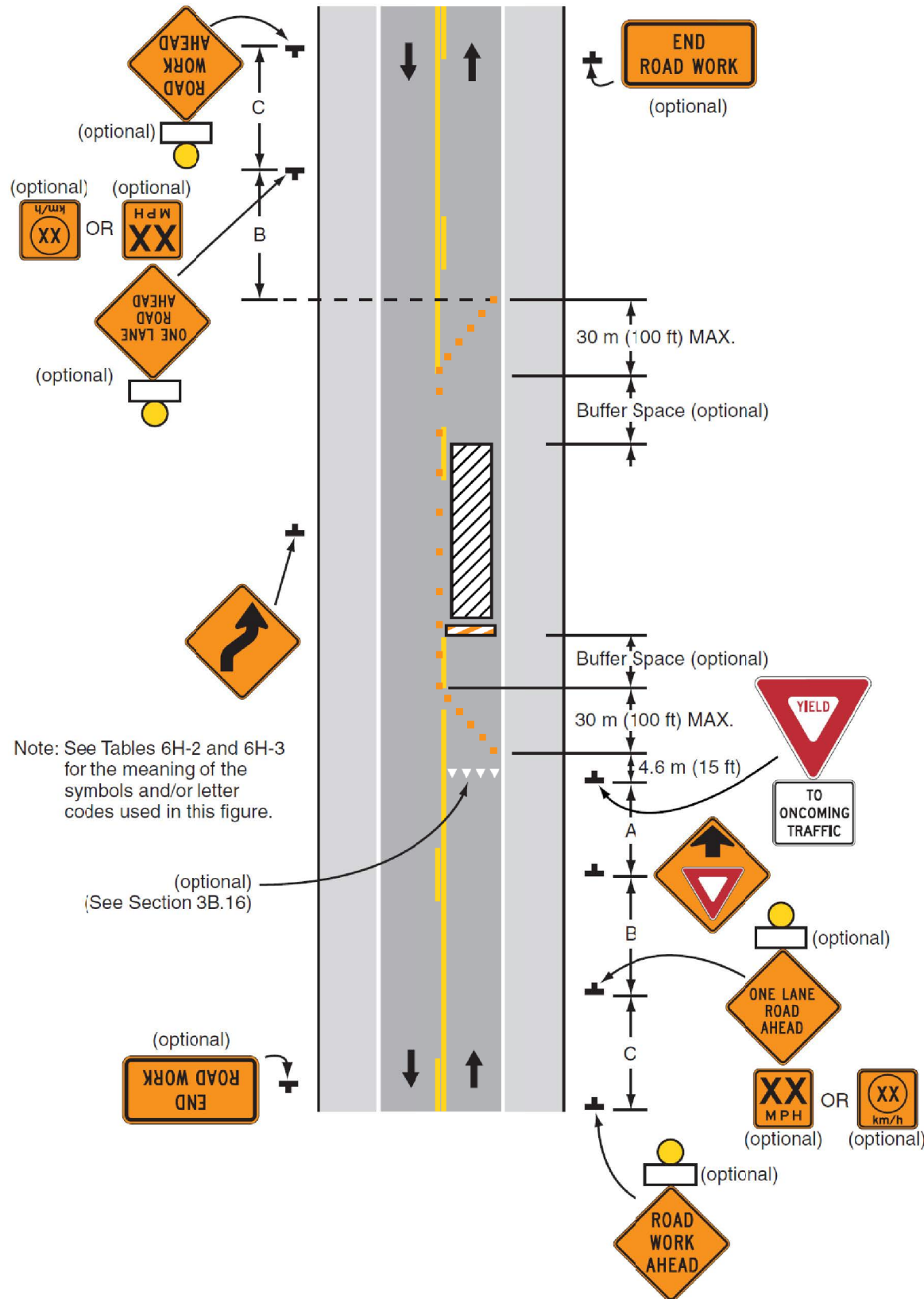
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EROSION CONTROL NOTES AND DETAILS

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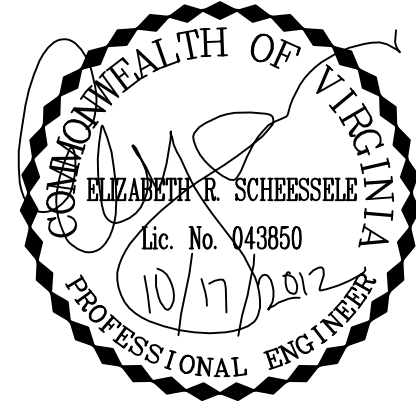
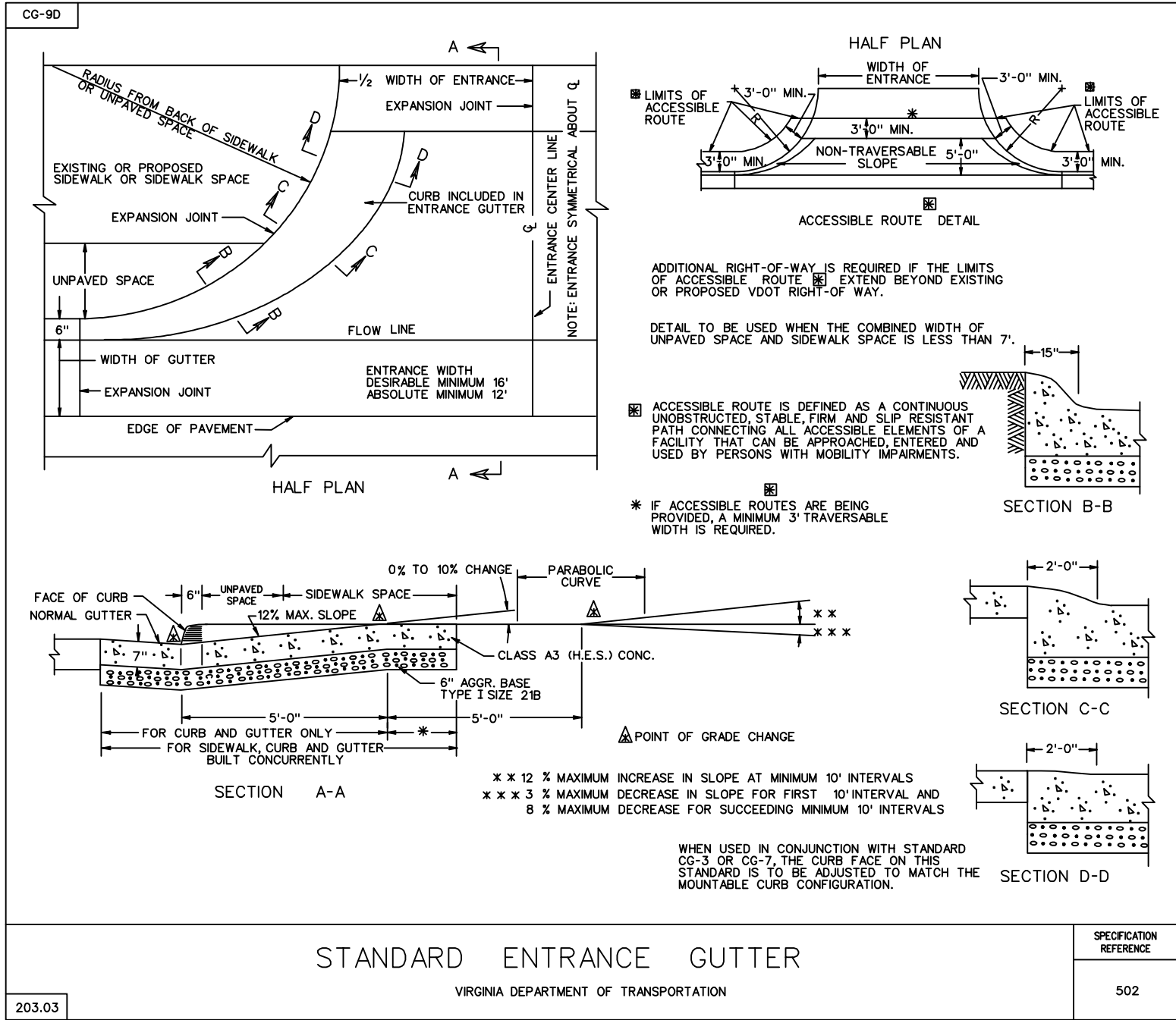
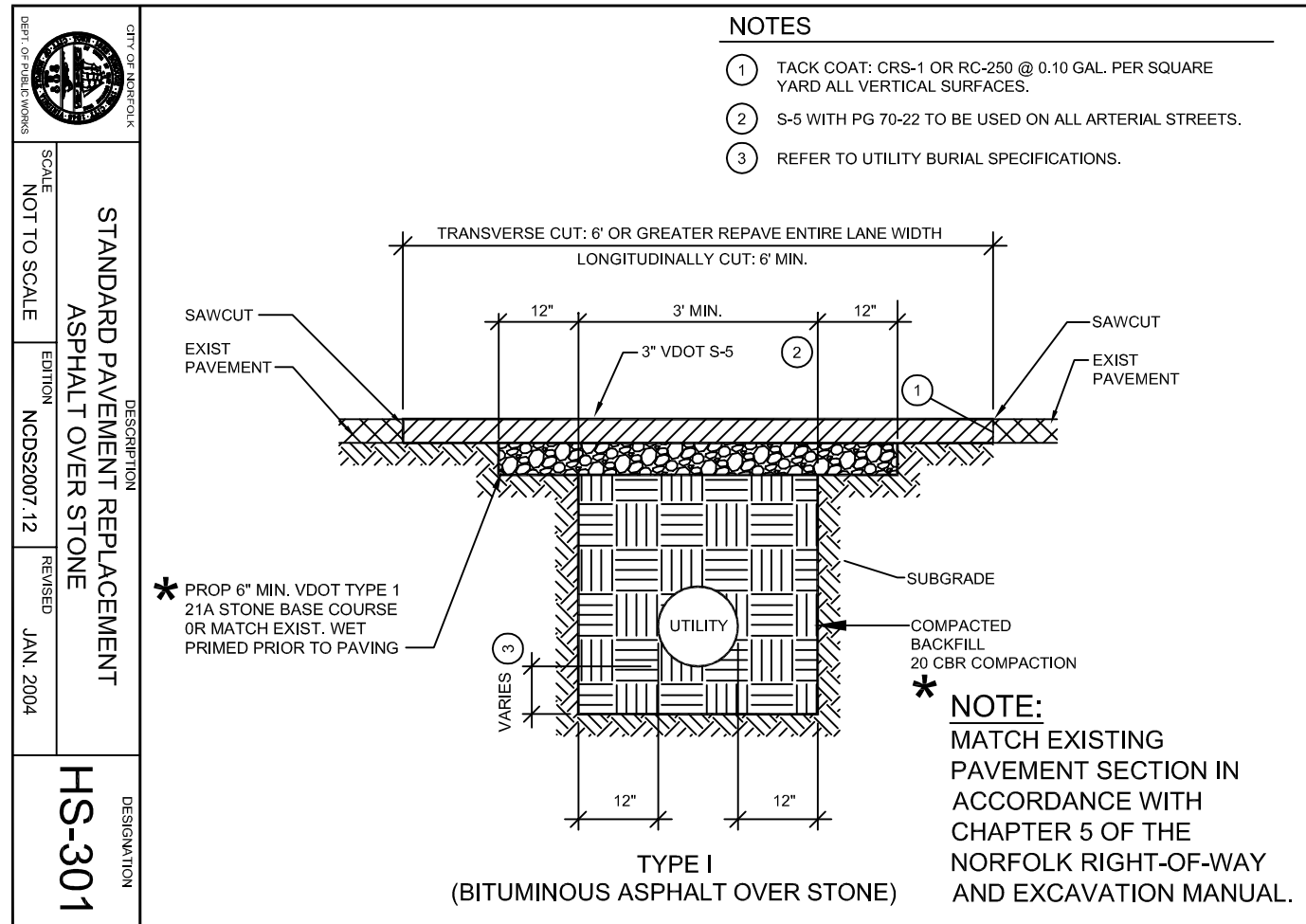
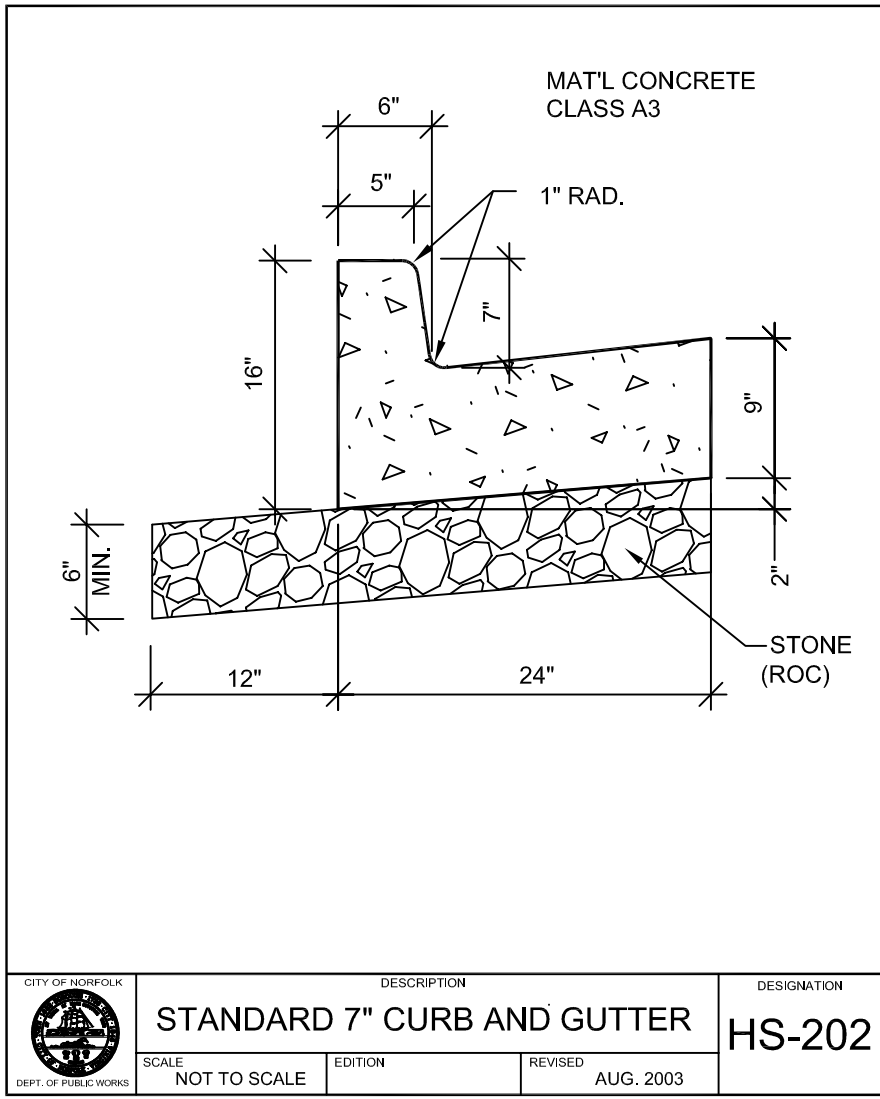
Figure 6H-11. Lane Closure on Two-Lane Road with Low Traffic Volumes



Typical Application 11

Notes for Figure 6H-12—Typical Application 12
Lane Closure on Two-Lane Road Using Traffic Control Signals

- Standard:
1. TTC signals shall be installed and operated in accordance with the provisions of Part 4. TTC signals shall meet the physical display and operational requirements of conventional traffic control signals.
 2. TTC signal timing shall be established by authorized officials. Durations of red clearance intervals shall be adequate to clear the one-lane section of conflicting vehicles.
 3. When the TTC signal is changed to the flashing mode, either manually or automatically, red signal indications shall be flashed to both approaches.
 4. Stop lines shall be installed with TTC signals for intermediate and long-term closures. Existing conflicting pavement markings and raised pavement marker reflectors between the activity area and the stop line shall be removed. After the TTC signal is removed, the stop lines and other temporary pavement markings shall be removed and the permanent pavement markings restored.
 5. Safeguards shall be incorporated to avoid the possibility of conflicting signal indications at each end of the TTC zone.
- Guidance:
6. Where no-passing lines are not already in place, they should be added.
 7. Adjustments in the location of the advance warning signs should be made as needed to accommodate the horizontal or vertical alignment of the roadway, recognizing that the distances shown for sign spacings are minimums. Adjustments in the height of the signal heads should be made as needed to conform to the vertical alignment.
- Option:
8. Flashing warning lights shown on the ROAD WORK AHEAD and the ONE LANE ROAD AHEAD signs may be used.
 9. Removable pavement markings may be used.
- Support:
10. TTC signals are preferable to flaggers for long-term projects and other activities that would require flagging at night.
 11. The maximum length of activity area for one-way operation under TTC signal control is determined by the capacity required to handle the peak demand.



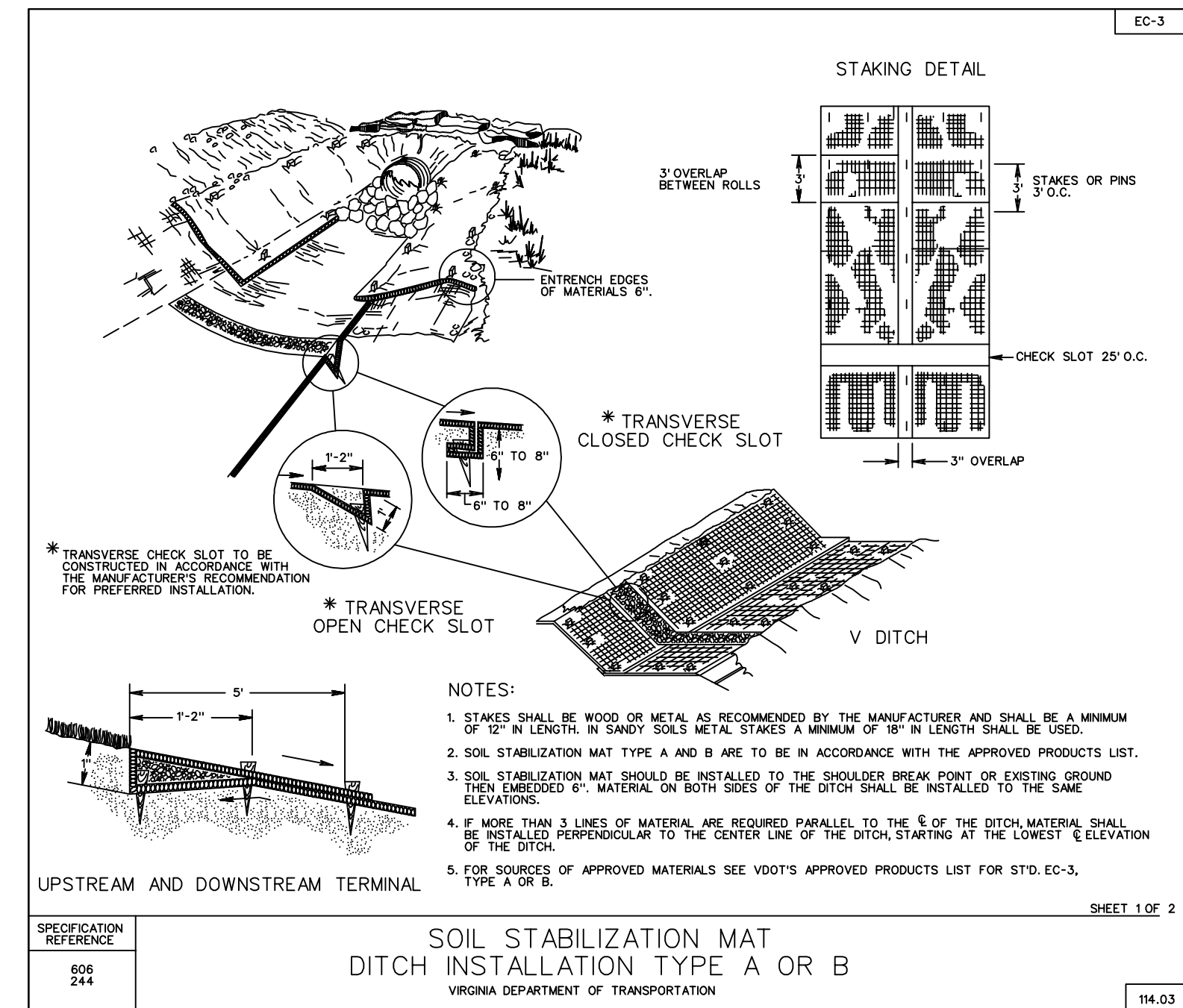
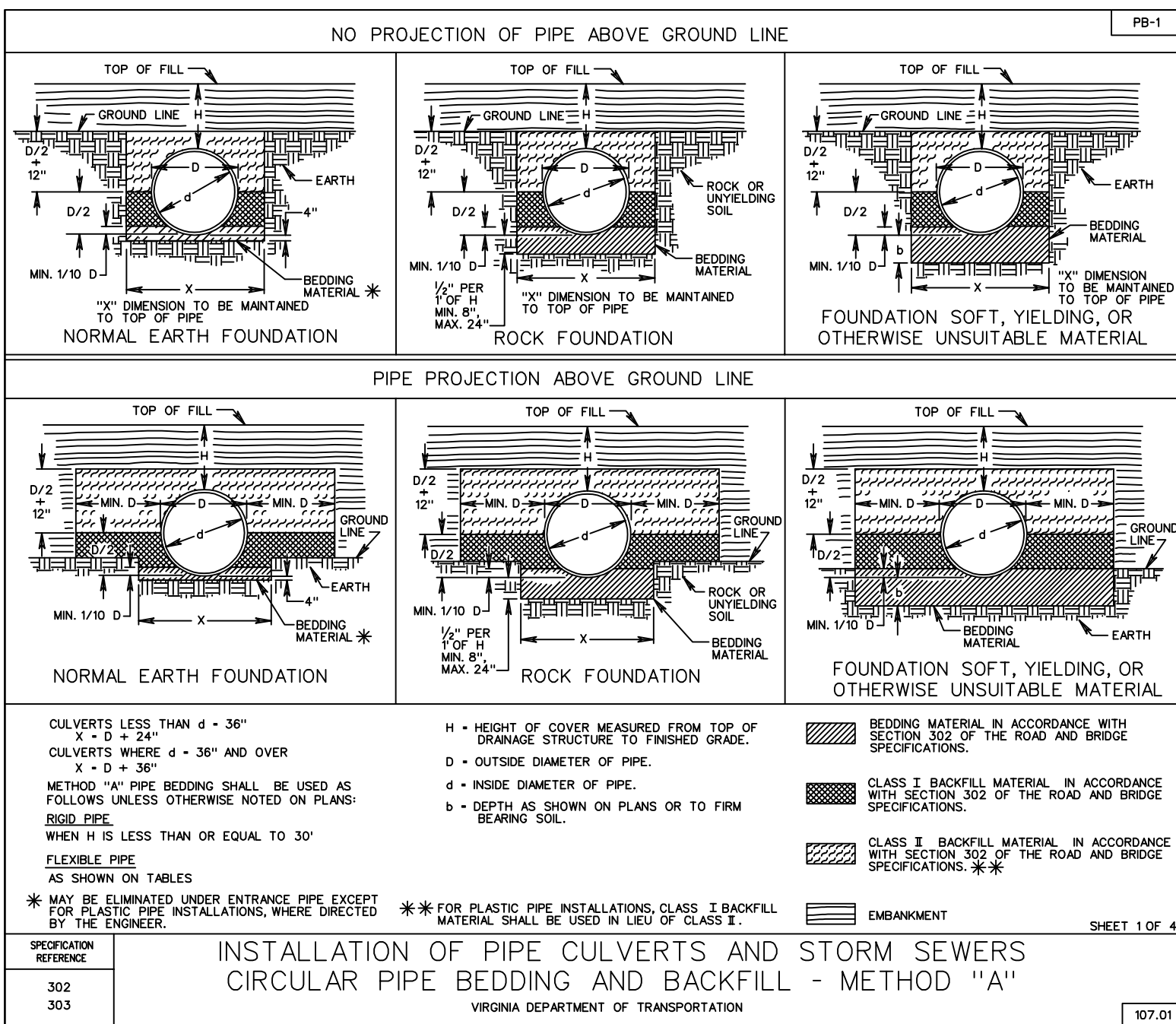
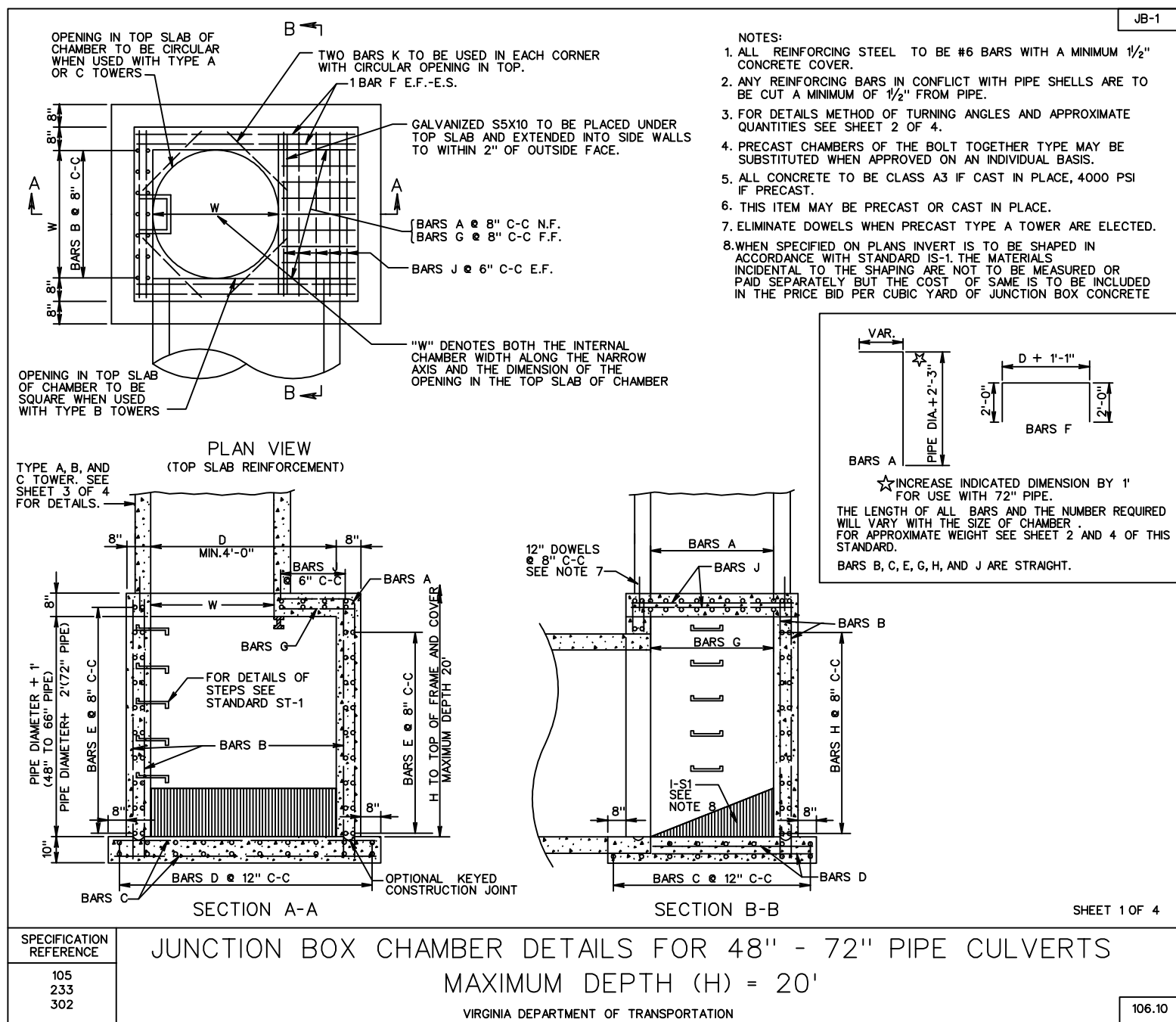
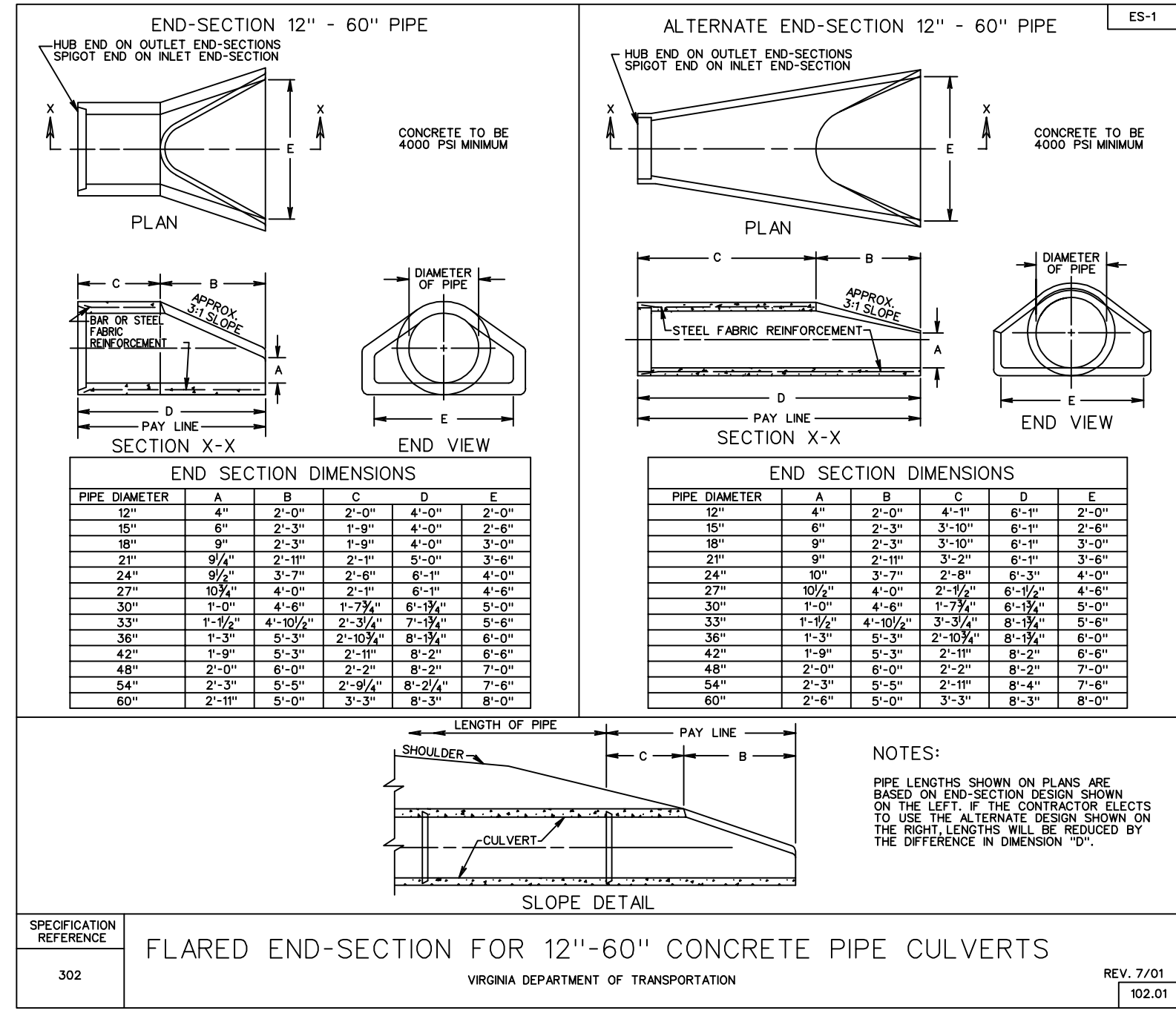
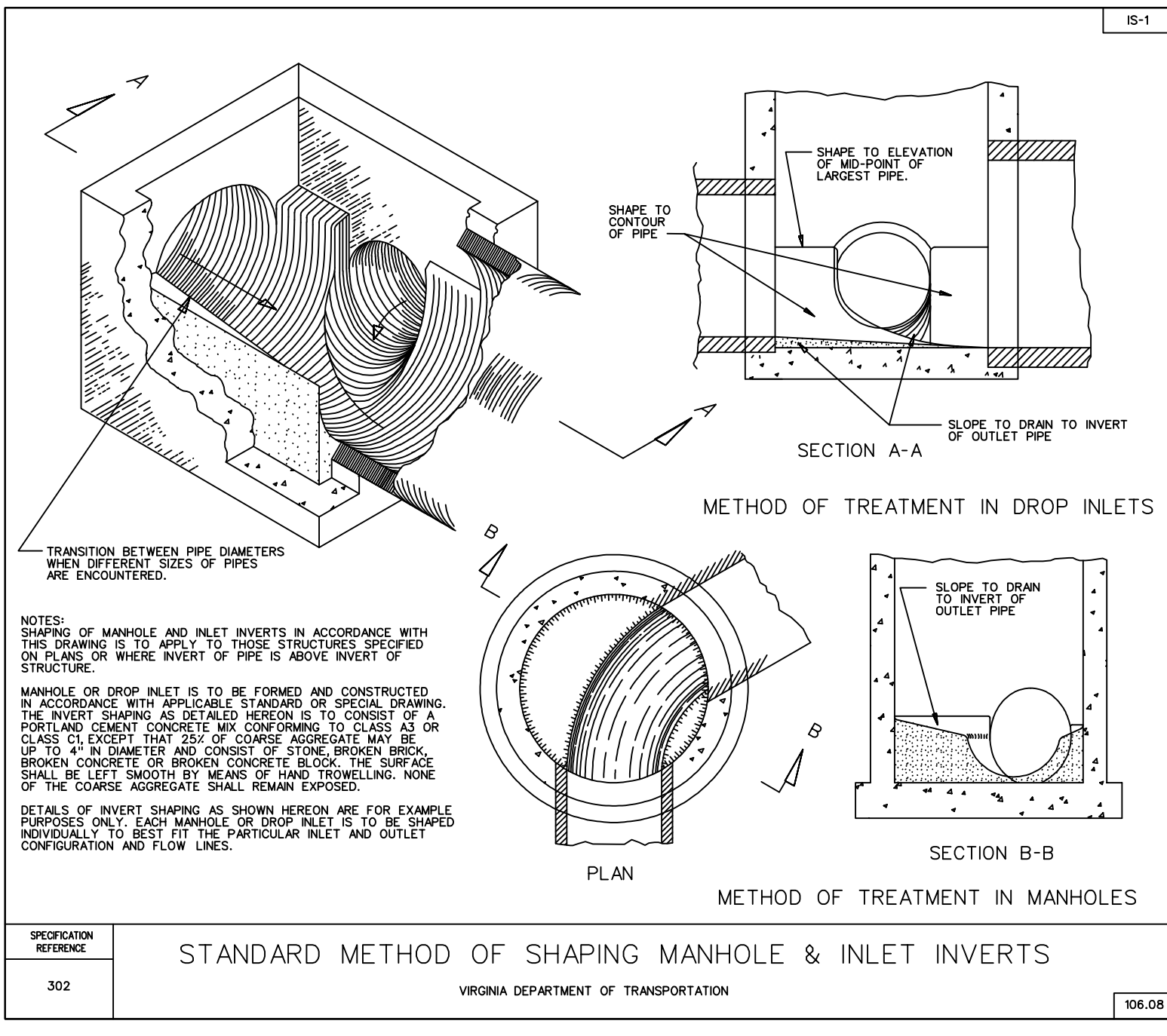
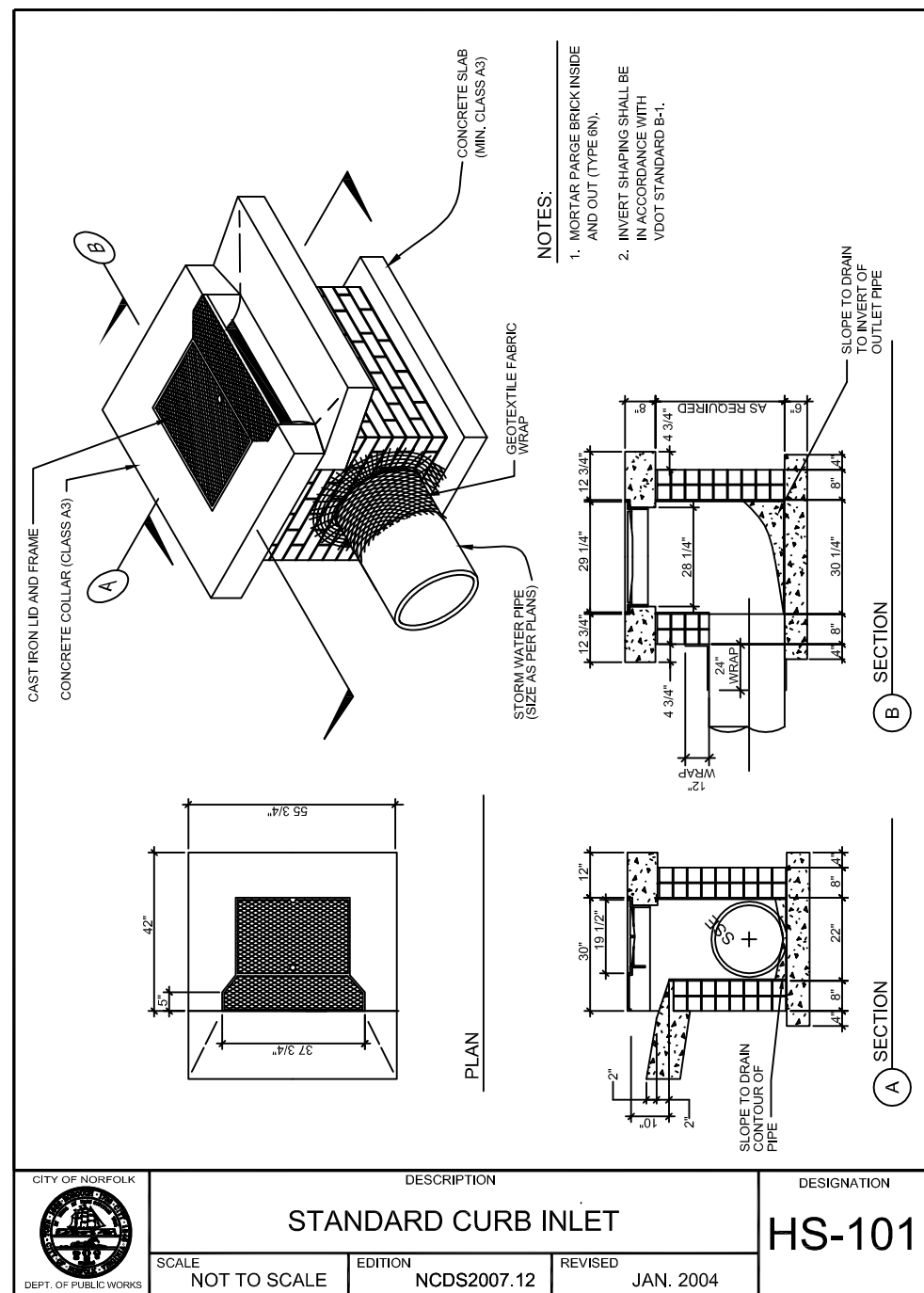
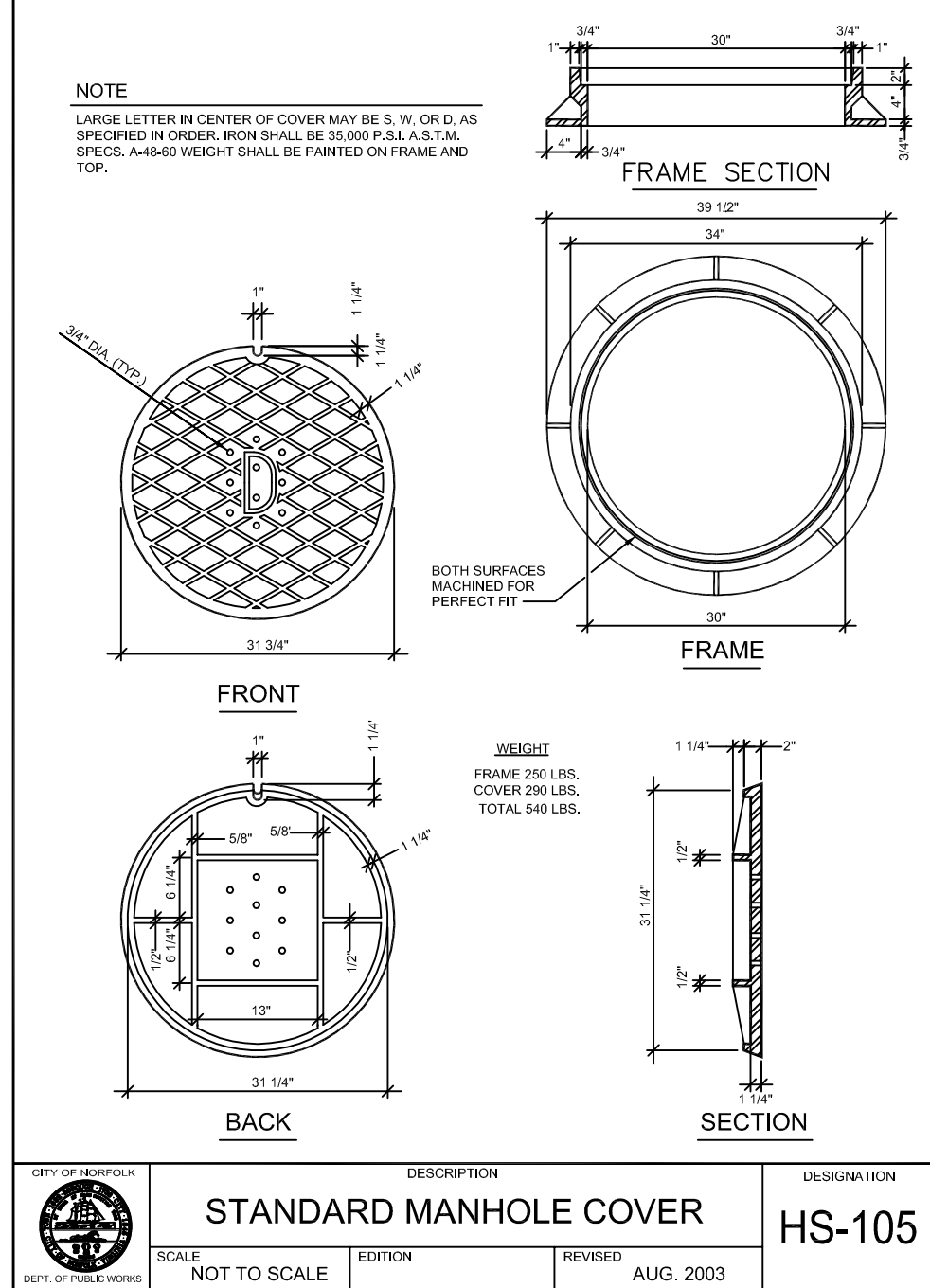
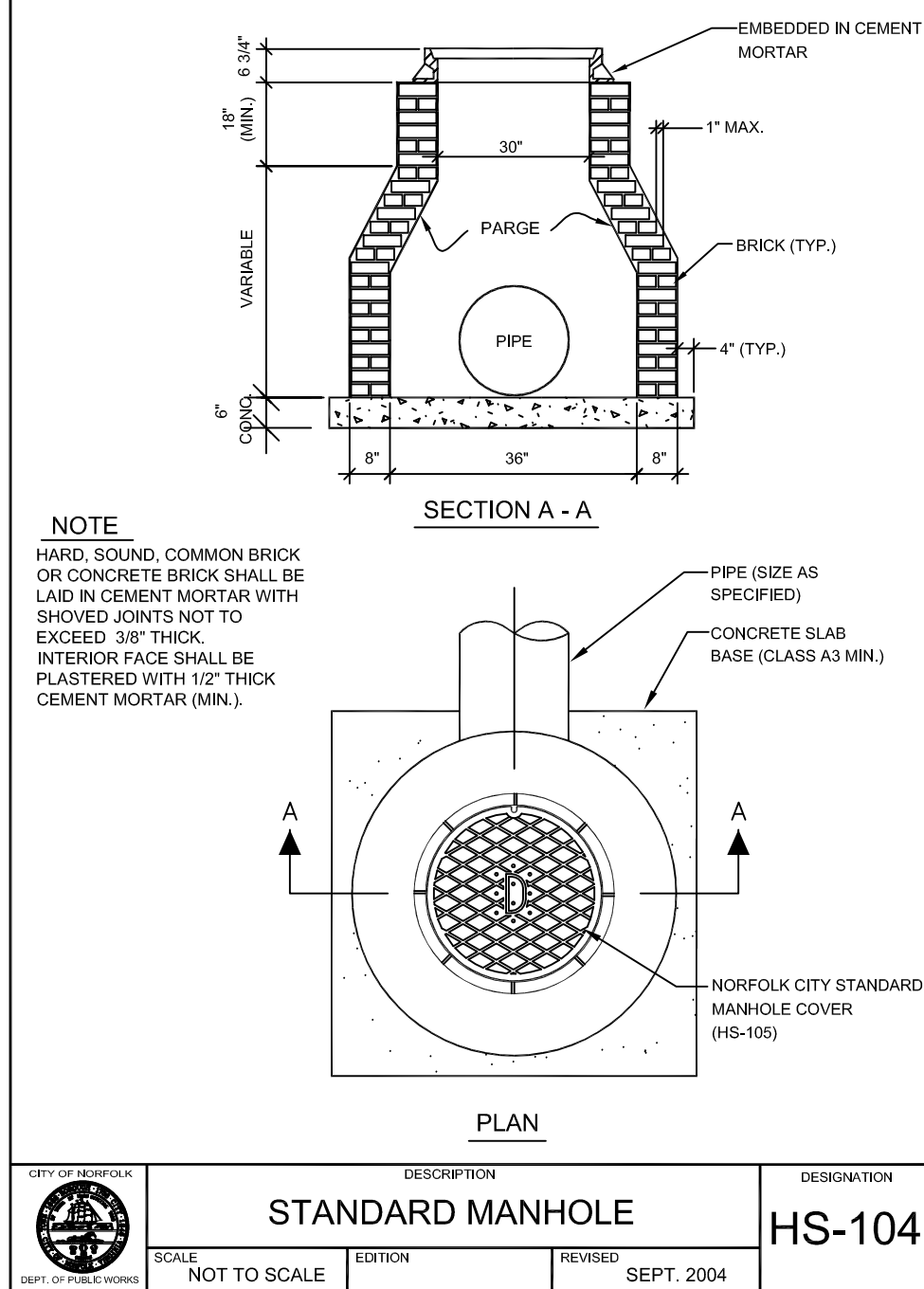
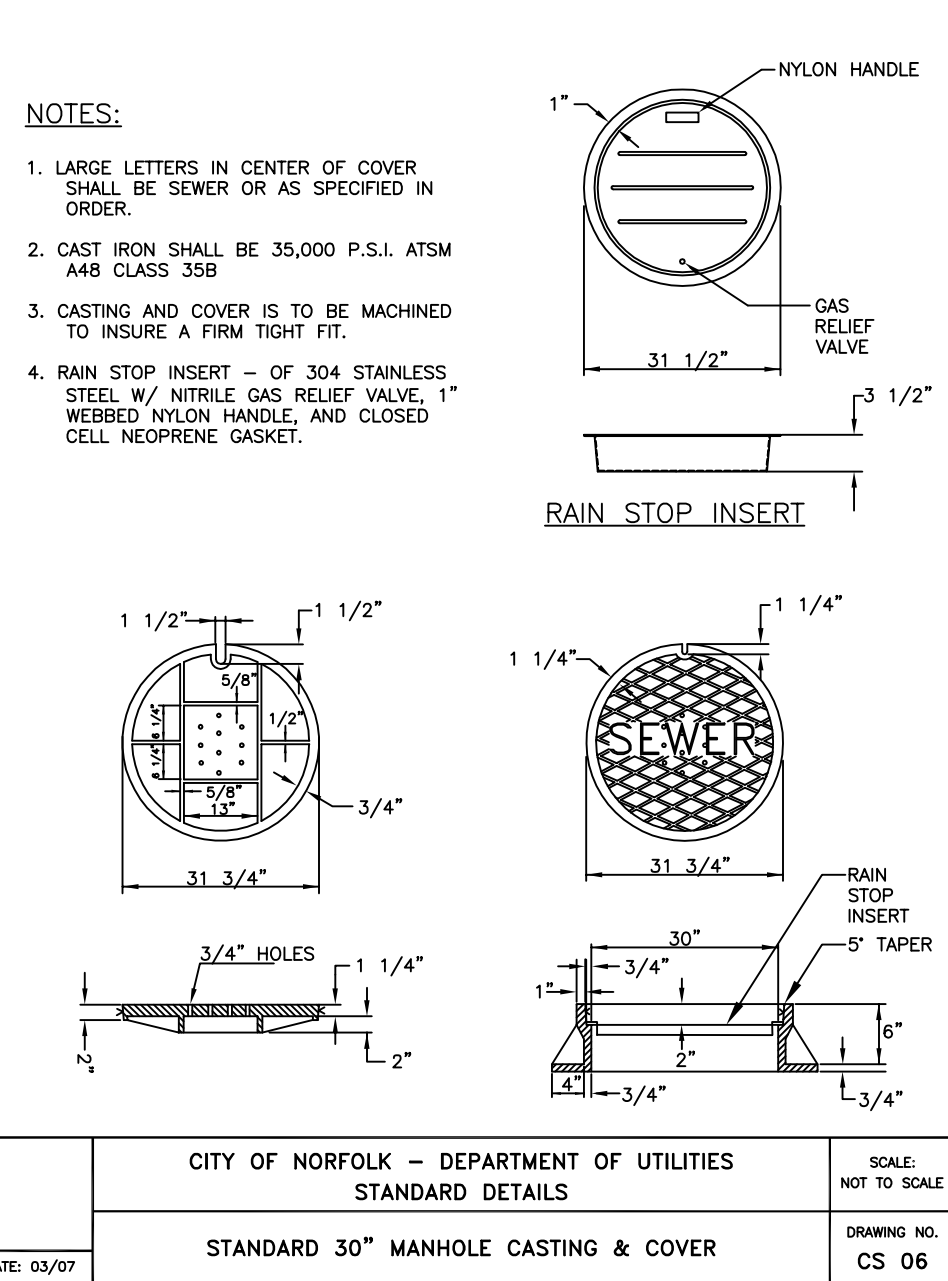
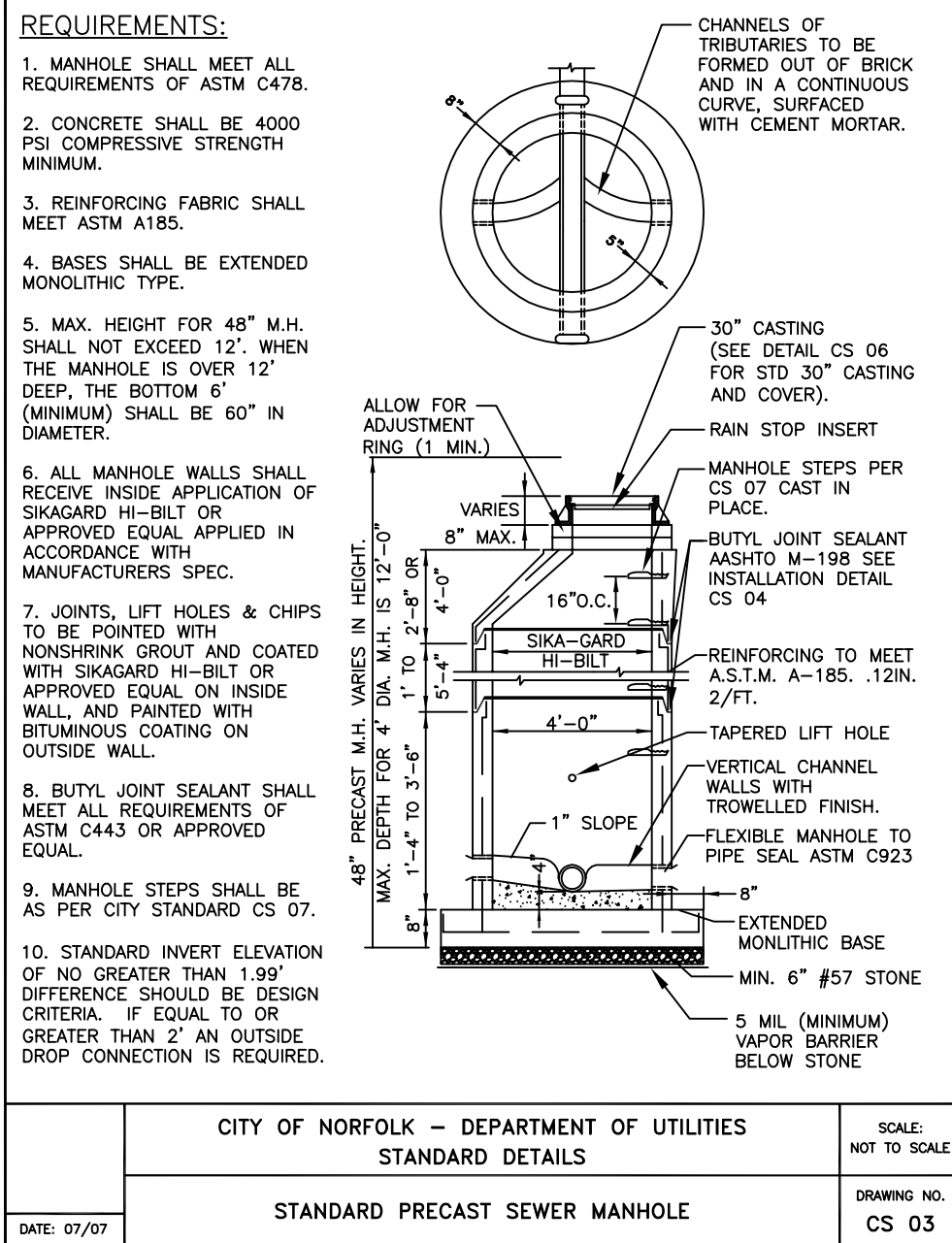
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NORFOLK, VIRGINIA
GENERAL NOTES AND DETAILS

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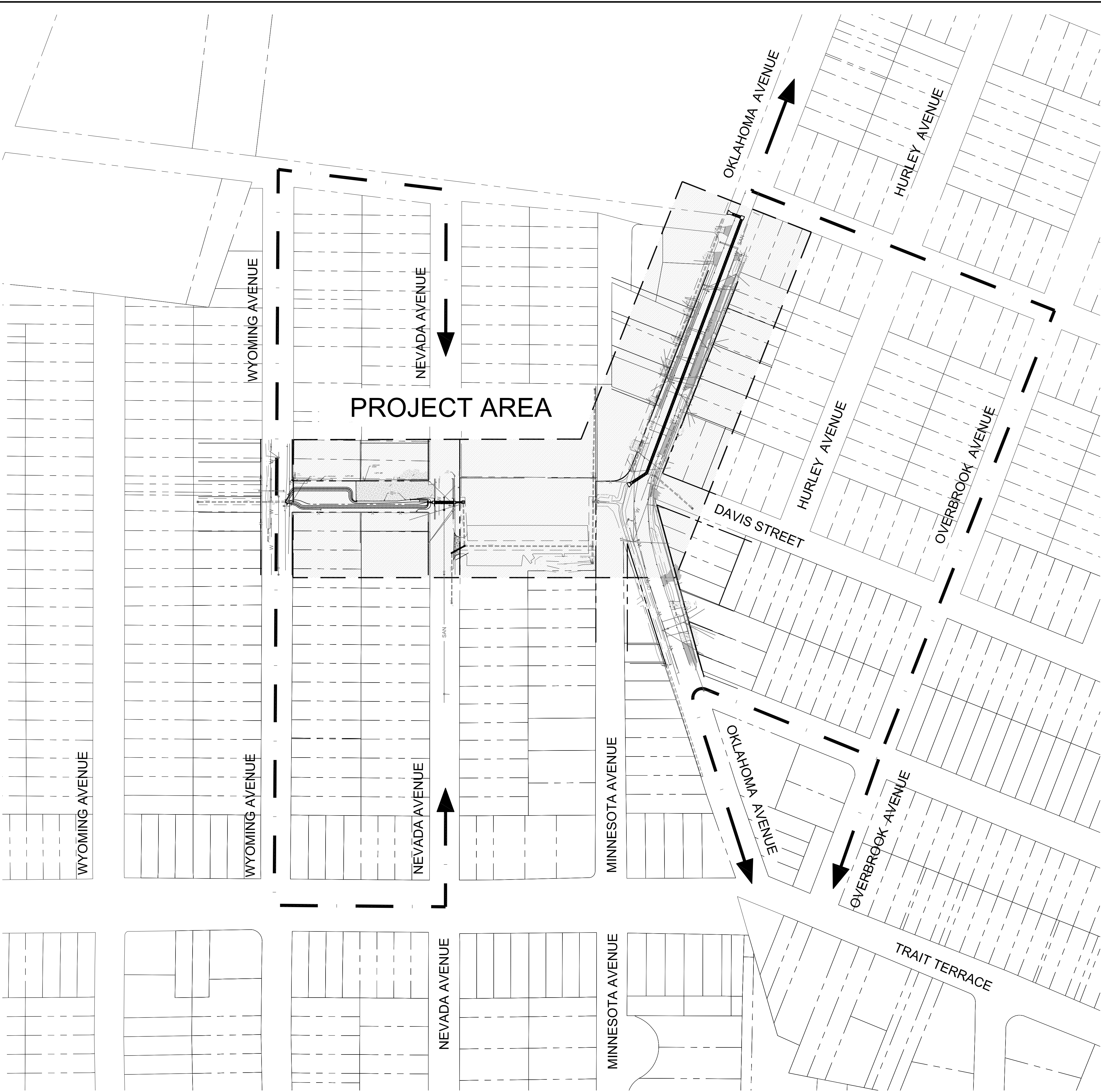
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10/17/2012
DRAWN BY
T. GRIFFITH
DESIGNED BY
A. ROGERS
CHECKED BY
L. SCHEESSELE
SCALE
NONE

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LOWER PETERSON DRAINAGE IMPROVEMENTS
NORFOLK, VIRGINIA
GENERAL NOTES AND DETAILS

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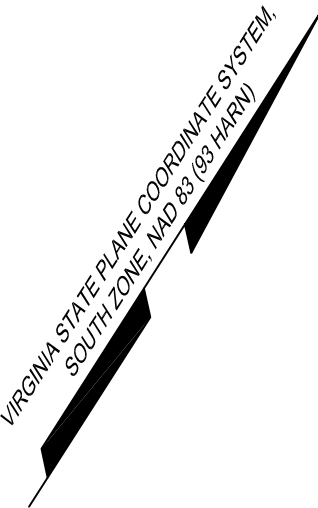
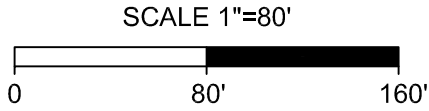
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POTENTIAL DETOUR ROUTES
1" = 80'

MAINTENANCE OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL SCHEDULE HIS WORK SUCH AS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES AT ALL TIMES, AND MINIMIZE THE DISTURBED AREAS LEFT UNCOMPLETED AND UN-STABILIZED.
2. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE AND POSITIVE SITE DRAINAGE THROUGHOUT CONSTRUCTION. ANY SUB-GRADE SOILS WHICH HAVE BEEN WEAKENED DUE TO INADEQUATE DRAINAGE, SATURATION AND/OR DISTURBANCE BY CONSTRUCTION SHALL BE UNDERCUT AND REPLACED WITH COMPACTED STRUCTURAL FILL AT NO ADDITIONAL COST TO THE OWNER.
3. WHENEVER THE CONTRACTOR'S OPERATIONS AFFECT VEHICULAR OR PEDESTRIAN TRAFFIC, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ANY AND ALL SAFETY CONTROL DEVICES IN ACCORDANCE WITH THE VDOT WORK AREA PROTECTION MANUAL AND AS DEEMED NECESSARY BY THE CITY OF NORFOLK TRAFFIC ENGINEER.
4. LANE CLOSURES SHALL NOT BE PERMITTED BETWEEN THE HOURS OF 6:30 A.M. AND 8:30 A.M. OR BETWEEN THE HOURS OF 4:30 P.M. AND 6:00 P.M. EXCEPTIONS TO THESE REQUIREMENTS SHALL REQUIRE PRIOR WRITTEN AUTHORIZATION FROM THE CITY OF NORFOLK TRAFFIC ENGINEER.



TIMMONS GROUP
 NORFOLK, VIRGINIA
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 TRAFFICE DETOUR PLAN

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